



# **THE FUTURE WARDROBE**

Future workshop method in designing clothing for 2045

Helena Grönbloom  
Master's thesis  
University of Lapland  
2017

# THE FUTURE WARDROBE

*Future workshop method in designing clothing for 2045*

Helena Grönblom  
University of Lapland  
Faculty of Art and Design  
Clothing Design  
Master's thesis  
2017

**University of Lapland, Faculty of Art and Design**

Title of the thesis: *THE FUTURE WARDROBE.*

*Future workshop method in designing clothing for 2045.*

Author: Helena Grönblom

Degree programme / subject: Clothing Design

Type of the work: Master's thesis ☒ Laudatur thesis ☐

Number of pages: 65

Year: 2017

Summary:

This research is a qualitative, multi-disciplinary study about designing clothing for the future with future workshop method. Futures studies works as a theoretical and methodological framework for the research. Clothing design gives the context and perspective to the subject. A group of clothing design students, clothing designers of the future, participated the *Future Wardrobe Workshop* that was organized to collect the research data.

The main research question is: *How could designers know already today what should be inside the future wardrobe and make decisions that would lead us towards the preferable future of clothing?* The main question is too broad to be fully answered in this research, therefore one method, future workshop, is on focus. The method is approached from a clothing design point of view and used as a tool to create images of the future wardrobe.

The data consists of questionnaires which the participants of the *Future Wardrobe Workshop* answered afterwards, supported with video and photo material from the workshop. Summarizing content analysis model by Philipp Mayring is used as a method to analyse the data.

The results show that general images of the future wardrobe can be created in future workshops but for more detailed scenarios additional methods should be used. The workshop participants' view is that there is potential in collaboration between futures studies and clothing design, and that studying the future wardrobe is important.

Key words: *future wardrobe, futures studies, future workshop, image of the future, clothing design*

I give my permission for the Master's thesis to be used in the library ☒

I give my permission for the Master's thesis to be used in the Provincial library of Lapland (only those concerning Lapland) ☒

**Lapin yliopisto, taiteiden tiedekunta**

Työn nimi: *TULEVAISUUDEN VAATEKAAPPI.*

*Tulevaisuustyöpaja vaatetuksen suunnittelussa vuoteen 2045.*

Tekijä: Helena Grönblom

Koulutusohjelma/oppiaine: Vaatetussuunnittelun koulutusohjelma

Työn laji: Pro gradu -tutkielma\_x\_ Laudaturtyö\_\_

Sivumäärä: 65

Vuosi: 2017

**Tiivistelmä:**

Tutkielma on laadullinen, monialainen tutkimus tulevaisuuden vaatetuksen suunnittelusta käyttäen tulevaisuustyöpajamenetelmää. Tulevaisuudentutkimus toimii tutkimuksen teoreettisena ja metodologisena viitekehyksenä. Vaatetussuunnittelu antaa kontekstin ja näkökulman aiheeseen. Ryhmä vaatetussuunnittelun opiskelijoita, tulevaisuuden vaatetussuunnittelijoita, osallistui *Future Wardrobe Workshop* –työpajaan, joka järjestettiin tutkimusaineiston keräämistä varten.

Päätutkimuskysymys on: *Miten suunnittelijat voisivat tietää jo nyt mitä tulevaisuuden vaatekaapin sisällä tulisi olla ja tehdä päätöksiä, jotka johtaisivat ihanteelliseen tulevaisuuden vaatetukseen?* Pääkysymys on liian laaja, jotta siihen voitaisiin täydellisesti vastata tässä tutkimuksessa, joten valittu menetelmä, tulevaisuustyöpaja, on tutkimuksen keskiössä. Menetelmää lähestytään vaatetussuunnittelun näkökulmasta ja käytetään tulevaisuuden vaatekaapin tulevaisuudenkuvien luomisen välineenä.

Tutkimusaineisto koostuu kyselyvastauksista, jotka kerättiin työpajan osallistujilta työpajan jälkeen, sekä työpajan aikana tallennetusta video- ja kuvamateriaalista. Aineistonanalyysimenetelmänä toimii sisällönanalyysi Philipp Mayringin mallia soveltaen. Tutkimustulokset osoittavat, että yleisiä tulevaisuudenkuvia tulevaisuuden vaatekaapista voidaan luoda tulevaisuustyöpajoissa, mutta yksityiskohtaisempia skenaarioita luodessa lisämenetelmiä tulisi käyttää. Työpajan osallistujien näkemyksen mukaan tulevaisuudentutkimuksen ja vaatetussuunnittelun yhteistyöllä on potentiaalia, ja tulevaisuuden vaatekaapin tutkiminen on tärkeää.

Avainsanat: *tulevaisuuden vaatekaappi, tulevaisuudentutkimus, tulevaisuustyöpaja, tulevaisuudenkuva, vaatetussuunnittelu*

**Muita tietoja:**

Suostun tutkielman luovuttamiseen kirjastossa käytettäväksi \_x\_

Suostun tutkielman luovuttamiseen Lapin maakuntakirjastossa käytettäväksi \_x\_

(vain Lappia koskevat)

## TABLE OF CONTENTS

|   |    |
|---|----|
| 1. INTRODUCTION.....  | 6  |
| 1.1 Inspiration and background .....                          | 6  |
| 1.2 Research questions.....                                   | 9  |
| 1.3 Structure of the thesis .....                             | 10 |
| 1.4 Methods .....   | 11 |
| 1.5 Data .....  | 12 |
| 1.6 Earlier research .....                                    | 13 |
| 1.7 Key terms .....   | 15 |
| 2. FUTURES STUDIES AS THE THEORETICAL FRAMEWORK .....         | 17 |
| 2.1 Future thinking .....                                     | 17 |
| 2.2 From the oracle of Delphi to modern futures studies ..... | 18 |
| 2.3 Futures studies as a discipline .....                     | 24 |
| 2.4 Tasks of futures studies .....                            | 27 |
| 2.5 Value discussion in futures studies .....                 | 31 |
| 3. FUTURE WARDROBE WORKSHOP .....                             | 33 |
| 3.1 Future workshop method .....                              | 33 |
| 3.2 Researcher's position .....                               | 34 |
| 3.3 The programme of the workshop.....                        | 35 |
| 3.3.1 Preparation phase .....                                 | 35 |
| 3.3.2 Critique phase.....                                     | 37 |
| 3.3.3 Imagination phase .....                                 | 38 |
| 3.3.4 Realization phase .....                                 | 42 |
| 3.3.5 Post action phase .....                                 | 42 |
| 4. ANALYSIS .....   | 44 |
| 4.1 Content analysis method .....                             | 44 |
| 4.2 Questionnaires .....                                      | 48 |
| 4.3 Video and photo material .....                            | 50 |
| 5. FINDINGS.....  | 52 |
| 6. CONCLUSIONS .....  | 58 |
| REFERENCES  |    |
| APPENDICES  |    |

*Future is the place  
where we all will spend  
the rest of our lives.*

Aaltonen & Jensen 2012

## 1. Introduction

### 1.1 Inspiration and background

Thirty years from now I will hopefully still be working. I will probably be a clothing designer or at least work in design field. What does it mean to be a designer, more precisely a clothing designer, in 2045? What kind of clothes will I design? How will clothing change in thirty years? Will the clothing that we know today develop into some other wearable items? What is inside the future wardrobe?

Predicting the future is not an easy task. In fact it is not even possible<sup>1</sup>. But how about creating the future? People are not only trying to prepare for the future but also trying to make preferable things happen<sup>2</sup>. The things that will happen in the future have not happened yet. With our choices and acts we can try to make those things happen that we wish to happen.

Who is to decide what the future of clothing will turn out to be? I hope it is us, clothing designers of the future. I believe that we have the possibility and responsibility to design the best possible clothing in the future. How could we know already today what we will be designing after a few decades from now? Why should we even know?

Curiosity about the future is my main motivation for this research. If there are ways to know about the future, and tools for making the right decisions for a better tomorrow, I want to know those methods.

This thesis is a multi-disciplinary study about futures studies in clothing design context. I am not interested in how clothing designers try to foresee the trends or create the right colour map for the next seasons. I think that subject is well-researched already. I want to see further in the future even though it is not literally possible to see.

---

<sup>1</sup> "Future is not predictable" is one of the widely accepted basic postulates for futures studies by Roy Amara (1981).

<sup>2</sup> Bell 1997a, 1.

### *The starting point and the inspiration for the research*

When I was about to start my thesis process I saw the film *Her* (2013) by Spike Jonze. *Her* is a unique love story with an exceptional visual world. The main character *Theodore* buys an intelligent operating system and starts to communicate and finally to fall in love with the operating system called *Samantha*. The story happens in Los Angeles in the near future. Actually, more than the future, the film reflects present. Technology in the film with hologram screens and artificial intelligence is further developed than today but all those things could exist already. The most interesting thing for me watching the film was the costumes. In many movies set in the future clothing is freakish and somewhat cold. The common idea seems to be that technology will become a closer part of clothing and will define the shapes and colours in the future. This is not the case in *Her*. At first the clothes seem to be exactly the same as today. Or in fact yesterday. Retro elements are so visible that the main characters look like hipsters. The clothes seem to be warm and comfortable. Costume designer Casey Storm says:

*" I think films get pushed in [the direction of clichés] because there's this idea that technology's natural progression is to become more sterile and cold. We were projecting forward what's happening today, which is a push towards more organic, eco-friendly things—things that have more of a warmth to them. It's the idea that in the future, you're going to have so many options. That world you're going to create is probably not going to be a distant, weird, isolated, sterile world. You're going to create a really beautiful, unique, comfortable, warm, and personal place that you would want to be in. "*<sup>3</sup>

The case of *Her* is remarkably interesting because a successful clothing brand Opening Ceremony acts an important role in the costume design. After the movie ended I stayed in the cinema reading the credits and waiting especially for the name of the costume designer. Instead, my attention was caught by an unusual title: "future wardrobe and design consultant". The title belonged to Humberto Leon, the co-founder of Opening Ceremony. I got interested in his role in the film-making. I read articles and interviews

---

<sup>3</sup> Cavallo 2013, <http://www.openingceremony.us/entry.asp?pid=8959>. Accessed 4.9.2015.



regarding the co-operation between Storm, Leon and the director Jonze, and the ways how the trio together created the wardrobe to the film's futuristic world.

#### *From costume design research to clothing design research*

After seeing *Her* I thought I had come up with my thesis topic: costume design in future set films. I started studying the subject and visited a costume design research seminar in Aalto University in November 2014 where I presented my thesis idea. The researchers in the seminar, mostly Aalto university doctoral and post-doctoral researchers in costume design, were very excited about my topic, and even offered their support. In March 2015 I participated another costume design seminar in Aalto University. *Critical Costume* was an international costume design research event with over 200 participants. There, surrounded by researchers, designers and artists from the field of costume design, I became aware of the fact that my field is *clothing* design, not costume design, and that there is a notable difference between those two fields. Costume design is about performance and fiction when clothing design is about real life and real people. However, both fields are about design and the dress so they can support each other.

With my education I could have searched only costume design in future set films but I understood that it does not serve my concern with the future of clothing well enough. "*Costume designers are servants of directors*", said the keynote speaker, Hollywood costume designer and researcher Deborah Nadoolman-Landis in Critical Costume seminar in Aalto University. I realized that even though the costume design in future set films, especially in *Her*, can be a depiction of the future clothing, it is mainly an element supporting the story and the director's vision. Nevertheless, I did not entirely discard the film because it had been the original inspiration for the research. Perhaps clothing designers, who design clothing for the future, should learn about the use of imagination in design process from the future set films and their costume designers.

#### *Futures studies came along*

"*Design is always future-making*"<sup>4</sup>. Design research is rather new, cross-disciplinary field that borrows theories and methods from other fields of inquiry. In this case that field turned out to be futures studies which has similarities with design research. Both

---

<sup>4</sup> Yelavich 2014, 12.

disciplines are young in the history of science. I was aware that a field called futures studies exist but I did not have real understanding what the field is about. After reading more literature from the futures studies field I was confident that the field would have a lot to give for clothing design.

## 1.2 Research questions

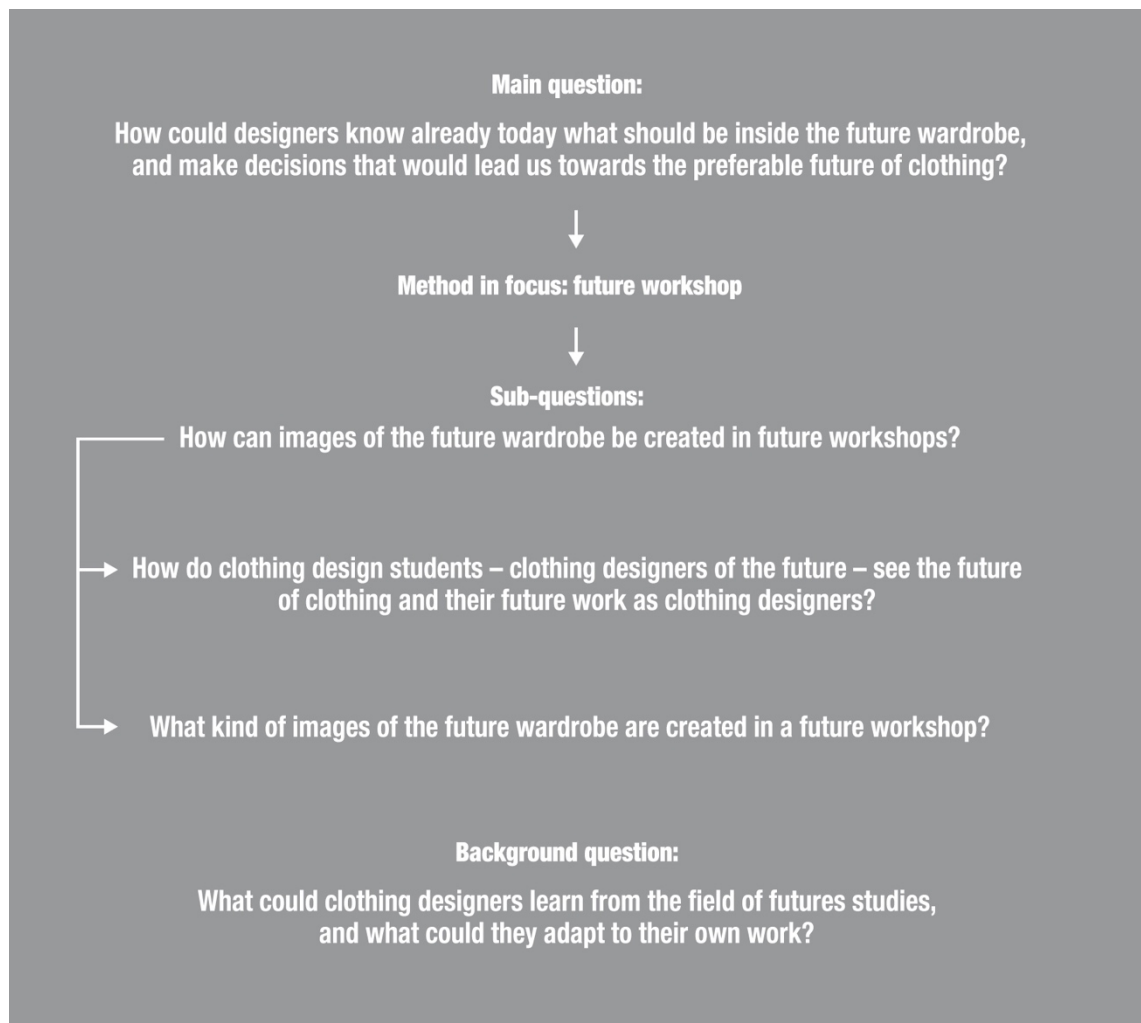


Figure 1: Research questions.

My curiosity is in knowing about the future and making a better future. I want to know about present possibilities to foresee and to affect the "future wardrobe". More specifically I am interested in: *How could designers know already today what should be inside the future wardrobe and make decisions that would lead us towards the preferable future of clothing?* The main research question is too broad to be fully

answered in this research, so I delimited the focus of the thesis to one specific method: future workshop.

In this thesis I am seeking for answer to a sub-question: *How can images of the future wardrobe be created in future workshops?* Image of the future is a key term in this thesis and I explain it in detail in chapter 1.7. Related to the first sub-question I also want to know: *How do clothing design students – clothing designers of the future – see the future of clothing and their future work as clothing designers?* Today it is clothing designers<sup>5</sup> who design most of the clothes that people wear but it is not certain that this will be the case in 2045 as roles in working life are changing. Nevertheless, clothing designers' role in the future is not a subject that I can search in depth in this thesis, so I acquiesce to the assumption that clothing designers will design the clothing also in the future.

My main goal is not to build images of the future clothing but to present ideas how we could build those images. Nevertheless, images of the future are inevitably born in the future workshop organized for collecting the data. Those images of the future are analysed in order to answer another sub-question: *What kind of images of the future wardrobe are created in a future workshop?*

As a broader question that follows me throughout the research in the background is: *What could clothing designers learn from the field of futures studies, and what could they adapt to their own work?* Hopefully the results of this thesis will inspire myself and other clothing designers of the future to use futures studies in order to create a better future wardrobe.

### 1.3 Structure of the thesis

Introduction chapter shortly explains the motive and the methods of the research and is supposed to make the reader curious about the subject. Chapter 2 is an overview of the

---

<sup>5</sup> I use the term *clothing designer* to identify a person who designs wearable items, today known as clothes and accessories, but that can change in the future.

futures studies field. The chapter also unmask futures studies as the theoretical framework for this research. In chapter 2.1 I explain the concept of future thinking which is common for all futures researchers. Chapter 2.2 describes the brief history of futures studies through some important events and people that have influenced the development of the field. Chapter 2.3 is about futures studies as a discipline and scientific field. I present a few different approaches by future researchers. In 2.4 I tell about the general tasks of futures studies that were originally defined by Wendell Bell. Chapter 2.5 is about value discussion in futures studies. I present Keekok Lee's epistemic-implication model that can be used for testing the values of the images of the future. Value discussion is inevitable in futures studies. In chapter 3 I tell about the Future Wardrobe Workshop (FWW) that I organized in November 2015. First, in chapter 3.1 I talk through the future workshop method, its origins and how it is adapted in FWW. In chapter 3.2 I describe my position in the workshop as a participating researcher. Chapter 3.3 is a description of the workshop step by step from the preparation phase to filling up the questionnaire after the workshop. In chapter 4 I expound the analysis beginning with the definition of summarizing content analysis method and model by Philipp Mayring in chapter 4.1. In chapters 4.2 and 4.3 I explain how I adapted the method for analysing the questionnaires and the video and photo material. In chapter 5 I tell about the findings that I drove from the data. Chapter 6 is dedicated to the results and conclusions from the research.

#### 1.4 Methods

When I acquainted myself with futures studies, I discovered that there are several interesting methods that would be suitable for my research. I wanted to find a method where I could involve a group of people to explore the topic, future wardrobe, together. Future workshop, invented by Robert Jungk together with Norbert Müllert, is a well-known and broadly used method amongst futures studies. It is a multistage group working method around a certain issue that is mapped from the future's point of view<sup>6</sup>. By adapting the future workshop method, I organized a workshop that I gave the name Future Wardrobe Workshop. The participants of the workshop were clothing design

---

<sup>6</sup> Rubin 2003, 905.

students from the University of Lapland. I am interested in how the designers of the future see the clothing of the future and what they think about their own abilities to affect it. During my studies I have participated several different workshops with varying topics. I consider workshops to be an effective way to get a group of people working together and to gain interesting results in a short period of time. For designers there is nothing new about workshops since they are widely used in design field but the way how Jungk designed a workshop specifically for futures topics is rather unique. Future workshop method is described more in detail in chapter 3.

Future Wardrobe Workshop is both, an object for my research as I wanted to study how the design students receive the method, and a data collection method producing data about the participants' visions of the future wardrobe. In order to collect the data from the workshop as an object, I used a questionnaire which the participants answered after the workshop. To be able to analyse the data that is driven straight from the workshop, it had to be recorded. I used a video camera to record the discussions and happenings and a digital camera to photograph the boards that were filled with notes. Questionnaire, video and photo work as data collection methods. As a data analysis method I used qualitative content analysis. I used a model for summarizing content analysis by Philipp Mayring. Summarizing content analysis method is described in chapter 4.

## 1.5 Data

The data of the research consists of varying materials gathered from the Future Wardrobe Workshop. I recorded video and photo material in addition to the questionnaires (Appendices 1 & 2) that were answered by the participants. I gave the questionnaires to the participants after the workshop both in paper and in e-mail in order to give them the opportunity to choose which format they preferred to use. I received six (6) questionnaires which means that one of the seven participants never answered the questionnaire despite several reminders. Video material was taken with a video camera which was on during the whole workshop capturing everything that was done and said. I had created big paper boards with different topics beforehand to be filled in in different phases of the workshop. During the workshop the participants and I wrote text and added notes on the boards. After the workshop I photographed the boards to

support the video material in reminding about the discussions in the workshop. The questionnaire answers are my major data as they are more likely to answer my curiosity about the future designers' views on future workshop method and on their possibilities to affect the future wardrobe. Video and photo material work as secondary data. I used the same summarizing content analysis method for all data but for the video and photo material the method was used in a lighter manner.

## 1.6 Earlier research

Futures studies methods in clothing design context is not a broadly studied subject yet but some research and collaboration between the fields has been made. In Finland D.A. Ana Nuutinen has done research in the interface of futures studies and design, and been an active member in Finnish Society for Futures Studies. In her doctoral thesis Nuutinen (2004) studied fashion designer's ability to know "what is in the air". The research titled *Edelläkävijät. Hiljainen, implisiittinen ja eksplisiittinen tieto muodin ennustamisessa (Ahead. Tacit, implicit and explicit knowing in fashion forecasting)*<sup>7</sup> involves a lot of information about fashion designer's work and about trend forecasting in textile and fashion industry.<sup>8</sup> The study has taken its place as a significant piece of basic research in fashion and clothing field in Finland.

In February 2015 Nuutinen had a key role in organizing *ARCTIC WEARS* future workshop that took place in Rovaniemi, Finland. The purpose of the workshop was to define Arctic-related needs and challenges in the future focusing especially on cold protection. The workshop was located in a climate chamber where the temperature was adjusted to -20 Celsius degrees in order to achieve Arctic approach. There were 20 participants in the workshop, clothing professionals and students as well as people who were generally interested in the topic. The participants were divided in four groups where they explored the year 2030 through four megatrends: demographic change, technology, climate change and urbanisation. Each group discussed one of the themes with the help of a "futures wheel" which is a futures method developed by Jerome

---

<sup>7</sup> Original title in Finnish.

<sup>8</sup> Nuutinen 2004.

Glenn in 1970s. The workshop was comprised of four stages. First stage was a brainstorming session where all ideas were written on a flipchart. In the second stage two or three of the ideas were chosen and discussed more. Thirdly, the ideas were presented for the other groups. In the first three stages there were questions that helped the conversation to take the right direction. As the fourth stage the ideas and future visions were discussed. As a result, Nuutinen created figures that show the main ideas of each megatrend, and analysed the future visions that were created.<sup>9</sup>

Soini-Salomaa (2013) studied the professional images of the future of craft and design fields in her doctoral thesis *Käsi- ja taideteollisuusalan ammatillisia tulevaisuudenkuvia*. Soini-Salomaa used several futures studies methods to study alternative images of the future for craft and design fields. The methods were 1) theme interview for three professionals, 2) future workshop for entrepreneurs and developers in creative fields, 3) questionnaire for craft and design students, and 4) Delphi method for specialists.<sup>10</sup> Soini-Salomaa analysed the data by using content analysis program called Atlas.ti<sup>11</sup>. The future workshop was a part of *Kultajyvä* seminar for entrepreneurs in creative fields held in Pori, Finland in 2009. The participants of the workshop were 20 entrepreneurs and developers who work in a creative field but not necessarily in craft or design field. One part of the workshop was a futures wheel that was modified from Glenn's futures wheel method. Futures wheel is a method where the subject is placed in the centre of the wheel, and primary, secondary and tertiary influences are collected around the subject.<sup>12</sup>

An example outside of Finland, where futures studies methods were used in design context, comes from Australia. In 2001 Insurance Manufacturers Australia (IMA) made a case study where futures studies techniques were used in a general insurance product development project. The project consisted of a series of workshops facilitated by a facilitator from TCFL Design and Technology Centre in Sydney and by futurists from The Future Foundation. Futurists developed scenarios of the future lifestyles, values and consumers' needs of general insurance products in Australia and other modern societies in 2011. The participants, who were mostly members of the strategic product

---

<sup>9</sup> Nuutinen 2015, 163-180.

<sup>10</sup> Soini-Salomaa 2013, 75.

<sup>11</sup> Soini-Salomaa 2013, 90.

<sup>12</sup> Soini-Salomaa 2013, 97.

development team of IMA, developed over 40 new product concepts as the outcome from the project. The benefit of using futures studies in the project was that the workshop participants were able to broaden their mind-set and consider new product concepts from the future world's perspective.<sup>13</sup>

## 1.7 Key terms

### *Future wardrobe*

I use the term “future wardrobe” to describe all the things that will be worn by people in the future and metaphorically the contents of the wardrobe in the future. I believe it is not necessarily only clothing that people will be wearing in the future as already today technology is worn more and more. It is also not certain that wearable items will be called clothes in the future. Also accessories and jewellery of the future are part of the future wardrobe. That is the reason why term “future clothing” is not extensive enough to describe the subject of the thesis.

### *Futures studies*

Futures studies works as the theoretical framework of this thesis. Futures studies has been defined and described in several different ways by researchers. Rubin (2003) describes futures studies as “collation, critical analysis, creative synthetisation and systematic presentation of intuitive or other knowledge about the future”<sup>14</sup>. Heinonen & co. (2013) define futures studies as a “field of science that is based on the study of several possible developments of the future”<sup>15</sup>.

Futures studies as a theoretical framework is described more in detail in chapter 2.

### *Image of the future*

Image of the future is a view of a future state, built on knowledge from the past and the present as well as on beliefs, expectations, values, hopes and fears. Some images of the future are more likely to happen than the others according to what we know today (more

---

<sup>13</sup> Saul 2002, <http://www.petersaul.com.au/designproducts.pdf>. Accessed 29.2.2016.

<sup>14</sup> Rubin 2003, 903.

<sup>15</sup> Heinonen & co. 2013, 331.



probable), and some images of the future we would like to see happening more than the others (more preferable). It is important to understand which images of the future could and which could not happen (possible and impossible).<sup>16</sup>

### *Future workshop*

Future workshop is a group work method that can be used for solving a defined problem from future's point of view or mapping different options for the future<sup>17</sup>. The method was originally developed by Robert Jungk together with Norbert Müllert. *Future Workshops* (1987) is Jungk and Müllert's book about the method and a guide for organizing future workshops<sup>18</sup>.

Future workshop as a method is explained more in chapter 3.1.

### *Clothing design*

In this research I use the term clothing design instead of fashion design. Clothing design is the name of my major subject in my studies in University of Lapland. Therefore, clothing design is a more familiar term for me. Also, clothing includes more than fashion, taking in consideration everything that is worn, also the most practical and least fashionable work wear for example.

---

<sup>16</sup> Rubin 2003, 902-903.

<sup>17</sup> Rubin 2003, 905.

<sup>18</sup> Jungk & Müllert 1987. Finnish translation *Tulevaisuusverstaati – käsikirja demokratian elvyttämisen mahdollisuuksista*.

## 2. Futures studies as the theoretical framework

### 2.1 Future thinking

Time is a funny thing. When you read this word *now*, now it is already history. Present is just a blink of an eye that used to be the future. The future instead is not real until it becomes the present. People are told to *live in the moment* yet we are still thinking about the future a lot. We plan *what are we going to* have for dinner, what are we going to wear tomorrow morning and what are we going to do next summer. We also think about *what if* I say that I like him and what if I do not, what is the worst that could happen and what is the best. We imagine all those different scenarios and create our own *images of the future*. Sometimes we know instantly what are the realistic options and what could never happen. The most difficult part is to think about the possible surprises that can come out of nowhere.

*Future thinking* is a way of thinking that is future-oriented and interested in or concerned about the things considering the future<sup>19</sup>. Malaska (2003) presents that the future can be "experienced" by using different ways of thinking. He calls them *utopia thinking, dystopia thinking, analogy thinking, system thinking, evolutionary thinking* and *scenario working*. The ways of thinking are ways to "penetrate the future".<sup>20</sup> *Future consciousness* is a built-in form of futures thinking, tendency to understand the significance and consequences of our actions<sup>21</sup>.

Roy Amara (1981) has defined well-known and widely approved basic postulates for futures studies as follows<sup>22</sup>:

1. *Future is not predictable*
2. *Future is not predetermined*
3. *Future can be affected*

---

<sup>19</sup> Rubin 2003, 903.

<sup>20</sup> Malaska 2003, 14-15.

<sup>21</sup> Rubin 2003, 904.

<sup>22</sup> Amara 1981, 25-29. See also for example Söderlund & Kuusi 2003, 377.

The first postulate saying that future is not predictable means that no matter how well we are trying to interpret the signs from the past and the present in order to guess what will happen in the future, we can never truly *know* in advance if they will or will not happen. Surprises can occur or someone else might be acting against our assumptions without us knowing. The second and the third postulate give us hope that we can affect the future with our acts and try to change the direction of the development.

## 2.2 From the oracle of Delphi to modern futures studies

### *The predecessors*

Since the early ages, human has been curious about the future. The earliest examples in the history of futuristic thinking are from Ancient Greece. The mythology of Ancient Greece has the story about the oracle of Delphi who was famous of his ability to see into the future<sup>23</sup>. Plato, the famous Ancient Greek philosopher, presented a description of an ideal society in his book *The Republic* but it was Thomas More's *Utopia*, published in 1516, that was the predecessor of the "utopian" literature<sup>24</sup>. The word "utopia" comes from two Greek words meaning "no place"<sup>25</sup>. In the beginning "utopia" denoted works that copied More's idea about describing a fictional dream society somewhere far away<sup>26</sup>. More and the other utopian authors made scenarios of desirable or undesirable societies, scanned the possible, the probable and the preferable, and criticized the current societies<sup>27</sup>. Therefore, their work had many parallels with the work of futures researchers.

### *The starting point of modern futures studies*

It is not possible to set a certain date or a year for the beginning of the modern futures studies. According to Söderlund & Kuusi (2003) futures studies as a scientific field seems to be born during the II World War but the debate on if it was born in United States or in Europe, is still ongoing<sup>28</sup>. Bell (1997a) suggests that, for example, the

---

<sup>23</sup> Söderlund & Kuusi 2003, 254.

<sup>24</sup> Söderlund & Kuusi 2003, 254.

<sup>25</sup> Bell 1997b, 7-8.

<sup>26</sup> Bell 1997b, 7-8.

<sup>27</sup> Bell 1997b, 14.

<sup>28</sup> Söderlund & Kuusi 2003, 251-252.

futuristic novels by the French writer Jules Verne from the 1860s and 1870s or H.G. Wells's writing *Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought* published in 1901, are both cases that could be considered as the origins of the futures studies<sup>29</sup>. H.G. Wells wrote many other future-oriented writings but he became famous especially for predicting the start of the II World War and being mistaken about the date by only a few months<sup>30</sup>. Yet, such a dating for the beginning of the futures studies cannot be done but it seems that before, during and after the II World War there were a lot of actions that lead to the starting point of the field. I introduce some important events, people and publications that had affection to the birth and development of the modern futures studies.

#### *Ogburn and social indicators*

Sociologist William F. Ogburn has a widely recognized role in the history of futures studies<sup>31</sup>. He was the head of the U.S. President's Research Committee on Social Trends that published the report *Recent Social Trends in the United States* in 1933. In his research Ogburn used a quantitative forecasting method to define future trends by looking into the past. According to his theory, change in the modern world usually starts with a technological innovation or intention where it leads to an economic change and social change and eventually affects people's values, beliefs and attitudes. Ogburn influenced the "social indicators movement", which was popular in the 1960s, with his idea that societies should have quantitative knowledge about their past, present and future.<sup>32</sup>

#### *Peace and war*

German professor Ossip K. Flechtheim presented the term *futurology* in 1943 while describing a new scientific movement that was developing. Flechtheim's idea of futurology as a new field of inquiry did not get much appreciation at that time but he also proposed organizing academic education for futures studies, which was a more accepted thought amongst futures researchers. However, it took decades until the idea

---

<sup>29</sup> Bell 1997a, 7.

<sup>30</sup> Söderlund & Kuusi 2003, 255.

<sup>31</sup> Bell 1997a, 9.

<sup>32</sup> Bell 1997a, 7-8.

of academic futures studies became reality. Flechtheim thought that eliminating war and achieving permanent peace were amongst the main purposes of futures studies.<sup>33</sup>

Flechtheim's idea was not fully realized as futures approach was widely used in war strategies. Operational research, which includes also game theory and decision theory, was born in the II World War to meet a practical need to change the old practices to fit better for the future<sup>34</sup>. Bell (1997a) gives an example from the II World War where operational research and a new technology was used by the British air forces to predict the Germans' next actions in a battle:

*"But the RAF (Royal Air Forces) had a secret weapon. A chain of ground radar (Radio Detection and Ranging) stations spotted approaching bombers before they got to Britain, sometimes as they were joining up over the continent for the flight across the English Channel. British fighter planes scrambled into the air and met the German bombers as they arrived. Following instructions from ground controllers with radar information, the British pilots flew to a point behind the bombers from where they intercepted and attacked them. Later, when the Germans switched to night time bombing to avoid visual detection and interception, the British countered with airborne radar in the fighter planes that could take over from the ground stations as the fighters approached within a mile or so of the bombers.*

*By then, the British fighter pilots, who had been vastly outnumbered at the start, had won the war over Britain. They won it with the crucial assistance of an operational system based on radar, that included a series of predictions and revised predictions of the future course of the German bombers that were used to direct the fighter pilots, not to where the bombers had been or then were, but to where the bombers were going to be when the fighters reached them."*<sup>35</sup>

The organisations and corporations that were born after the II World War had a great impact on the development of the futures studies field. *Research and Development Corporation RAND* was established after the II World War linked to the air forces of United States. Many significant futures researchers worked for RAND and the

---

<sup>33</sup> Söderlund & Kuusi 2003, 262-263.

<sup>34</sup> Söderlund & Kuusi 2003, 265.

<sup>35</sup> Bell 1997a, 27-28.

corporation influenced the establishment of many futures studies organisations, such as *Hudson Institute* (1961) and *The Institute for the Future* (1968). *Hudson Institute* influenced the broadening of futures studies from war defence strategies to consider the future of the whole Western World.<sup>36</sup>

#### *The decade of developing futures studies*

1960s was a significant decade in the history of the futures studies. In United States the field had focus on technologies and economic growth leaving values and social relations outside of the discussion while in Europe emancipatory approach, influenced by Flechtheim's thoughts, was stronger. Instead of making predictions on technologies, emancipatory futures studies highlighted creating the future and bringing up problems, threats, goals, possibilities and values. Emancipatory approach started using methods that aimed to create several possible futures scenarios.<sup>37</sup>

Bertrand de Jouvenel was an influential person in emancipatory futures studies in France. In 1960 de Jouvenel together with his wife founded *Association Internationale de Futuribles* that is still working today and publishing a journal *Futuribles: Analyse, Prevision; Prospective*<sup>38</sup>. De Jouvenel's most significant work *The Art of Conjecture* (1964)<sup>39</sup> belongs to futures studies classics<sup>40</sup>. With the term *conjecture* de Jouvenel means professionally stated knowledge that futures studies produces<sup>41</sup>. He abandoned the term futurology and the idea of the futures studies as its own scientific field, and stressed the ability to create views on the future with knowledge instead<sup>42</sup>. One of de Jouvenel's greatest credits was favouring the study of several various images of the future compared to the earlier study of one predictable future<sup>43</sup>.

Another significant futures researcher in 1960s was Herman Kahn who was one of the founders of Hudson Institute in 1961<sup>44</sup>. Kahn together with Anthony J. Wiener

---

<sup>36</sup> Söderlund & Kuusi 2003, 266-267.

<sup>37</sup> Söderlund & Kuusi 2003, 269-271.

<sup>38</sup> Bell 1997a, 20. See also *Futuribles* web page <https://www.futuribles.com/en/>. Accessed 19.3.2017.

<sup>39</sup> Original title in French *L'art de la Conjecture*, English transl. by Nikita Lary in 1967.

<sup>40</sup> Söderlund & Kuusi 2003, 288.

<sup>41</sup> Söderlund & Kuusi 2003, 280.

<sup>42</sup> Söderlund & Kuusi 2003, 280.

<sup>43</sup> Söderlund & Kuusi 2003, 293.

<sup>44</sup> Söderlund 2003, 352.

published *The Year 2000* (1967) in which they introduced the term *scenario* in futures studies context<sup>45</sup>.

The “First International Future Research Conference” was organised in 1967 in Oslo by Johan Galtung and others from the *International Peace Research Institute*. In 1973 the *World Futures Studies Federation* was founded in Paris in the footsteps of the Oslo conference and other meetings that were led by futurists such as Galtung, Jungk and de Jouvenel.<sup>46</sup>

### *Limits to Growth and Megatrends*

In 1968 Italian industrialist Aurelio Peccei together with Alexander King founded the *Club of Rome*. The objective of establishing the club was to raise awareness about global problems that Peccei had seen in his business travels around the World. The world-famous report *Limits to Growth* (1972) that was made for the club was a huge success with over 9 million sold copies. The report predicted that if there are no changes, both population and industrial growth will end latest on the 21<sup>st</sup> century. In 1970s and 1980s there were 16 other reports made for the club but none of them reached the same attention as *Limits to Growth*.<sup>47</sup> Today the Club of Rome describes itself on its web page as follows: “*The Club of Rome is an organisation of individuals who share a common concern for the future of humanity and strive to make a difference*”<sup>48</sup>.

In the end of 1970s futures studies field aimed to get closer to societal decision-making. This aim continued in the 1980s. In 1982 John Naisbitt published his well-known book *Megatrends*. The book inspired other researchers to list megatrends and made the study of them popular. Emancipatory futures studies strengthened in 1990s but at the same time technological approach remained popular in creating economic forecasts. In 1990s the theories, ethics and methodologies of the field were developed towards the idea of studying several possible futures.<sup>49</sup>

---

<sup>45</sup> Söderlund & Kuusi 2003, 296.

<sup>46</sup> Bell 1997a, 36.

<sup>47</sup> Bell 1997a, 44-46.

<sup>48</sup> *The Club of Rome* web page, <https://www.clubofrome.org> Accessed 19.3.2017.

<sup>49</sup> Söderlund & Kuusi 2003, 275-278.

### *International organizations for futures studies today*

Different kind of communities from non-governmental organizations to corporations are interested in foreseeing and creating the future. International futures projects have emerged, one of them being *The Millennium Project* which collects and shapes knowledge about the future to a practical form that decision-makers can easily use. By using Delphi method the project has been defining and updating 15 global challenges<sup>50</sup> and giving suggestions related to the challenges for transnational organizations since 1996.<sup>51</sup> Other international futures organizations or institutes that are still working today are for example *Worldwatch Institute* (1974), an independent research institute devoted for studying and publishing information about global environmental issues, and *World Future Society* (1966), an organization that is focused on studying societal and technological development and their influence on the future<sup>52</sup>.

### *Futures studies in Finland*

Futures studies has a strong foundation in Finland. *The Finnish Society of Futures Studies* was founded in 1980. Since then it has been developing and representing futures studies as a scientific field. Futures studies has become more appreciated and also used by companies, organizations, communes and the state of Finland. *Finland Futures Research Centre* (FFRC) was founded in 1992 as a department within Turku School of Economics at the University of Turku. *Finland Futures Academy* (FFA) is a futures studies network between ten Finnish universities which was founded in 1998. The first professorship was founded in 2004 and five years later the Finnish Society of Futures studies made a statement about developing futures studies as a scientific study field. In 2011 a revised international master programme was established.<sup>53</sup>

---

<sup>50</sup> See *The Millennium Project* web page for the 15 challenges, <http://millennium-project.org/millennium/challenges.html> Accessed 19.3.2017.

<sup>51</sup> Söderlund & Kuusi 2003, 325-327.

<sup>52</sup> Söderlund & Kuusi 2003, 333-335. See also *Worldwatch Institute* web page <http://www.worldwatch.org> and *World Future Society* web page <http://wfs.site-ym.com>. Accessed 19.3.2017.

<sup>53</sup> Heinonen 2013, 6. See also *Finland Futures Research Centre (FFRC)* web page <http://www.utu.fi/en/units/ffrc/Pages/home.aspx> and *Finland Futures Academy (FFA)* web page <http://www.utu.fi/en/units/ffa/Pages/home.aspx>. Accessed 19.3.2017.



## 2.3 Futures studies as a discipline

Futures studies, like any other discipline, has to meet the requirements for scientific research. One requirement of scientific research is the existence of the subject. In futures studies it is not possible because the future is not concrete and cannot be examined with senses.<sup>54</sup> Because futures studies does not completely qualify for a scientific field it is safer to call it *a field of knowledge* instead.

Futures studies is a multidisciplinary field. It uses knowledge and methods from different scientific fields from which natural sciences and social sciences are the most convenient<sup>55</sup>. Since the aim of futures studies is to create extensive scenarios where the different aspects are taken into consideration, multidisciplinary is inevitable<sup>56</sup>. For futures researchers this means that they necessarily have to stay up-to-date about the research results of other disciplines<sup>57</sup>.

Futures studies does not have a dominant paradigm<sup>58</sup>. Since the early days of the field, researchers have been discussing about the paradigms and methods and about the question whether futures studies is science or not<sup>59</sup>.

Mannermaa (1991) uses two different divisions for the approaches to futures studies. The first division to *technocratic futures studies* and *humanistic futures studies* is relevant when the field is described from a historical point of view. The two categories tell about different *purposes* of futures studies but they do not tell enough about the different "schools" of futures studies.<sup>60</sup>

---

<sup>54</sup> Rubin 2004a, <https://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/tieteen-kentassa/>. Accessed 22.2.2016

<sup>55</sup> Kamppinen, Malaska & Kuusi 2003, 25.

<sup>56</sup> Kamppinen, Malaska & Kuusi 2003, 25.

<sup>57</sup> Rubin 2004a, <https://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/tieteen-kentassa/> . Accessed 22.2.2016.

<sup>58</sup> Mannermaa 1991, 336.

<sup>59</sup> Mannermaa 1993, 24.

<sup>60</sup> Mannermaa 1991, 41.

### *Technocratic futures studies*

Technocratic approach was dominant in futures studies until the beginning of 1970s<sup>61</sup>. Most of the futures studies methods, such as scenarios, were developed within technocratic futures studies. Making predictions, or more likely making one prediction about the future was typical for the approach. The economic growth was an ideal time for technocratic futures studies.<sup>62</sup>

### *Humanistic futures studies*

When technocratic futures studies is interested in the economic and technological factors of the future, humanistic approach gives attention to values, goals and development.<sup>63</sup>

The second division to *descriptive futures studies*, *scenario paradigm* and *evolutionary futures studies* is the result of Mannermaa's own research and a suggestion of a new paradigm for the field over 25 years ago:

### *Descriptive futures studies*

Descriptive futures studies includes the idea that in the past there are regularities that continue in the present and to the future. The goal of descriptive futures studies is to forecast the future as objectively as possible by looking at the past invariances. The methods used in descriptive futures studies are mostly quantitative.<sup>64</sup>

### *Scenario paradigm*

Scenario paradigm is based on the thought that the future is not predictable. The approach focuses on constructing various futures instead of predicting one future. Different scenarios can be built by using varying futures studies techniques and scenario itself is not a method. The methods that are used in scenario paradigm are qualitative and creative.<sup>65</sup>

---

<sup>61</sup> Rubin 2004b, <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/lahestymistavat/>  
Accessed 29.2.2016.

<sup>62</sup> Mannermaa 1991, 23-25.

<sup>63</sup> Mannermaa 1991, 25-27.

<sup>64</sup> Mannermaa 1991, 336-349.

<sup>65</sup> Mannermaa 1991, 336-349.

### *Evolutionary futures studies*

Complexity is the key word of evolutionary futures studies paradigm. The approach is based on the idea that searching the evolutionary processes in the social development is useful because the societies do not necessarily develop continuously. Both qualitative and quantitative methods are applied to evolutionary futures studies.<sup>66</sup>

Rubin (2004) suggests the division to four approaches to be the most convenient way to divide the different approaches behind the futures studies. The approaches are *anticipatory*, *cultural* or interpretative, *critical* and *analytical* approach.

### *Anticipatory approach*

The aim of the anticipatory approach is to formulate one precise forecast to help in decision-making and strategic planning. Anticipatory approach works ideally in cases where the time under discussion is not far in the future and where the subject is not affected by many variables.<sup>67</sup>

### *Cultural or interpretative approach*

Cultural approach is based on the thought that the future has several different options. The approach gives attention to values and cultural customs considering them democratically. Creating forecasts is not in focus in the cultural or interpretative approach. More important is the way of thinking. The methods of the approach are used, for instance, in studying the cultural and social factors' influence on decision-making and on the future.<sup>68</sup>

### *Critical approach*

The critical approach seeks to question and examine the assumptions and the starting points that lie in creating the images of the future. Activating people to social activity is in focus.<sup>69</sup>

---

<sup>66</sup> Mannerman 1991, 336-349.

<sup>67</sup> Rubin 2004b, <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/lahestymistavat/> Accessed 29.2.2016.

<sup>68</sup> Rubin 2004b, <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/lahestymistavat/> Accessed 29.2.2016.

<sup>69</sup> Rubin 2004b, <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/lahestymistavat/> Accessed 29.2.2016.

### *Analytical approach*

The analytical approach includes developing theories, tools and models for affecting the future and for directing one's own actions in long term. Studying the various possible, probable and preferable futures needs theories and methods, and those are created with the analytical approach to futures studies.<sup>70</sup>

## 2.4 Tasks of futures studies

Futures studies investigates alternative futures that can be possible, probable or preferable. The principal purpose of futures studies is maintaining or improving the wellbeing of people, both the currently living and people of the future generations, and of our planet. A characteristic feature to futures studies is prospective thinking that futures researchers use when searching the possible (what can or could be), the probable (what is likely to be) and the preferable (what ought to be) futures.<sup>71</sup>

Futures studies is not only knowing about the future but also acting for the preferable future. The starting points for futures studies are that the future is not predictable or predestined hence we can have affect to it with our decisions and actions<sup>72</sup>.

Even though the general aim of futures studies is to work to maintain or improve the wellbeing of the people and the environment, there are more specific tasks in the field. Wendell Bell (1997a) defines nine (9) major tasks for futures studies in his first volume of *Foundations of Futures Studies* which is one of the classic publications in the field.

### 1. The Study of Possible Futures

Studying the possible futures contains looking at the present in unusual ways and seeing the present problems as opportunities of the future. Possibilities are things that can or

---

<sup>70</sup> Rubin 2004b, <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/lahestymistavat/>  
Accessed 29.2.2016.

<sup>71</sup> Bell 1997a, 73.

<sup>72</sup> Rubin/Finland Future Research Centre homepage.  
<https://www.utu.fi/en/units/ffrc/studying/FutureMasters/Studies/Pages/Futures-Studies.aspx>.  
Accessed 11.9.2015.

could happen and even they might never occur they are potential. Future possibilities exist in the present. It is important to recognize what is possible as well as what is impossible. If we think and act as if something impossible is possible it leads to an error and the other way around.<sup>73</sup>

## 2. The Study of Probable Futures

The study of probable futures means searching what is most likely to happen in the future. The researcher must have information about the causes and effects of the subject under examination in order to outline the probable futures.<sup>74</sup>

## 3. The Study of Images of the Future

Images of the future are expectations, anticipations, hopes and fears that people have about the future. The study involves investigating the contents, causes and consequences of images of the future. The questions why some people have optimistic and why other people have pessimistic images of the future can also be searched.<sup>75</sup>

## 4. The Study of the Knowledge Foundations of Futures Studies

Futures studies, like any other field of research, has to have philosophical bases for the knowledge it yields. Studying the knowledge foundations of the field is important for the development of the methodologies.<sup>76</sup>

## 5. The Study of Ethical Foundations of Futures Studies

The value discussion is inevitable in the field of futures studies. Caring about the freedom and wellbeing of the future generations is one of the most important purposes of the field and the very same purpose gives justification for my research. To know what could bring wellbeing for the human and the environment, meaning what the

---

<sup>73</sup> Bell 1997a, 76-78.

<sup>74</sup> Bell 1997a, 80.

<sup>75</sup> Bell 1997a, 82.

<sup>76</sup> Bell 1997a, 86.

preferable future would be like, the futurists must explore the values and goals of the people.<sup>77</sup> Values in futures studies are discussed more in chapter 2.5.

## 6. Interpreting the Past and Orientating the Present

The past, the present and the future follow each other always in the same order. We must have perspective on the past in order to know what we want from the future. In between there is the present where the actions shaping the future happen. Futures studies helps us to interpret the past, understand the present, decide and act in the present, and balance the use of present and future resources.<sup>78</sup>

## 7. Integrating Knowledge and Values for Designing Social Action

Mere knowledge is not sufficient for futures studies on its aim of creating a better life for future generations. It requires action too. Yet, before acting designing social action provides organizing distinct knowledge and scrutinising different values. Futurists cannot work alone but they need to collaborate with specialists from different fields in order to design social actions.<sup>79</sup>

## 8. Increasing Democratic Participation in Imaging and Designing the Future

Co-designing the future images with ordinary people is part of futures studies. Involving people to designing the future may be slow and cause public disagreements but it has however more advantages than disadvantages. In the end, the future will come across with all of us. One way to involve people to design process is to organize future workshops.<sup>80</sup>

---

<sup>77</sup> Bell 1997a, 87.

<sup>78</sup> Bell 1997a, 90.

<sup>79</sup> Bell 1997a, 91.

<sup>80</sup> Bell 1997a, 95.

## 9. Communicating and Advocating a Particular Image of the Future

Futures studies is study of alternative futures but still one of the alternatives is usually stronger and more preferable than the others. That is the future that we contribute to. Acting for that particular future to come true the futurists are responsible for the consequences that the actions have as they are made according to their studies. Futurists are committed to communicate with the participants of the action, whether they are politicians or ordinary people.<sup>81</sup>

In order to use resources and energy to foresee the future of clothing, we must answer the question: why do we want to know about the future? For me the answer is clear. I care about the future generations and about the future of our planet, and clothing can have an effect to both.

Some of the tasks seem more relevant for my research than the others although together they explain well how futures studies can have different purposes. The 3. task is about the images of the future which for me are one of the most interesting concepts in futures studies. In this research I also talk about creating images of the future wardrobe. The three last tasks would all be very important in projects where futures studies would be used in clothing design context and projects that would go on next level from planning to action. The 7. task involves collaboration between different fields which would naturally be a part of those projects. The 8. task unites ordinary people with researchers to create the images of the future together. One suitable method for that is future workshop which I am testing in this research with a bit less democratic way as the participants are professionals-to-be in design field. It would be interesting to continue the research with organizing a similar future workshop for ordinary people from different backgrounds.

---

<sup>81</sup> Bell 1997a, 96.

## 2.5 Value discussion in futures studies

My thesis works on the assumption that people can try to control the future by the choices and actions they make in the present. In order to make the right choices and actions that will lead to the preferable future, one must first define what is the preferable future and find out what kind of actions are needed to get there. But how can one decide what is the preferable future? People have different preferences and values which means that also people's images of the preferable future vary. How can different images of the future be evaluated?

Wendell Bell's *Foundations of Futures Studies 2. Values, Objectivity and the Good Society* (Bell 1997b) is dedicated to a discussion of ethics of futures studies. In the second chapter of his book, titled *Making Value Judgements Objectively: How Do We Decide What Is Preferable?*, Bell demonstrates how value assertions can be tested objectively. According to Bell, studying only people's preferences is not sufficient in order to evaluate preferable futures. Bell presents three methods on how value assertions (what *ought* to be, what we *ought* to do) can be objectively tested in the same way as scientific predictions (what can be, what might be, what will be). Bell suggests the epistemic-implication model by Keekok Lee to be the most powerful of the three methods.<sup>82</sup>

The epistemic-implication model is based on verification (proving something right) and falsification (proving something wrong)<sup>83</sup>. According to epistemic-implication model the value assertions can be judged objectively by testing if they meet the five (5) criteria:

### 1. *Serious evidence*

The evidence<sup>84</sup> supporting the value assertion cannot be just a personal commitment or decision but it must have some external observers and it has to be public<sup>85</sup>.

---

<sup>82</sup> Bell 1997b, 69.

<sup>83</sup> Bell 1997b, 87.

<sup>84</sup> The evidence are "because-sentences" that support the value assertions. For example, "People ought not to smoke tobacco" (value assertion) "because to do so increases their chances of dying in lung cancer" (evidence). Bell, 1997b, 88.

<sup>85</sup> Bell 1997b, 87.



## *2. Referentially relevant evidence*

The evidence and the assertion that it is supporting must share the same subject so they have to be about the same thing<sup>86</sup>.

## *3. Causally relevant evidence*

The evidence and the value assertion must have a causal connection. This criterion relies on the cause-effect theory<sup>87</sup>.

## *4. Causal independence*

The evidence must have happened before the conclusion<sup>88</sup>.

## *5. Empirical test*

The evidence must be able to be scientifically tested<sup>89</sup>.

When using the epistemic-implication model with futures aspect, Bell suggests to change the name of the “evidence” to “predictive grounds”, because evidence can be resulted only by observing the past and the present, but for value assertions about the future the supportive sentences must be in future tense. Bell gives an example: “*People ought not to smoke tobacco*” (value assertion)” *because smoking tobacco probably will increase their chances of dying of lung cancer at some future time*” (predictive grounds).<sup>90</sup>

---

<sup>86</sup> Bell 1997b, 88.

<sup>87</sup> Bell 1997b, 89.

<sup>88</sup> Bell 1997b, 90.

<sup>89</sup> Bell 1997b, 91.

<sup>90</sup> Bell 1997b, 99.

### 3. Future Wardrobe Workshop

#### 3.1 Future workshop method

Future workshop is a well-known futures studies method that was originally developed by Austrian Robert Jungk together with Norbert Müllert. Future workshop is a tool for searching the future but also for making the future. Future workshop is a forum of empathy and imagination, ordinary people's futures method and a source of social innovations.<sup>91</sup> Jungk and Müllert's book *Future Workshops* (1987) gives instructions for organizing a futures workshop<sup>92</sup>.

Jungk and Müllert say that a successful future workshop offers its participants entertainment, strengthens their self-confidence and makes them feel that their thoughts are precious and life pleasant.<sup>93</sup>

Future workshop is a participatory tool that involves amateurs to "design" the future. In the case of Future Wardrobe Workshop, the participants are not amateurs of design because they are professionals-to-be in clothing design but they are not experienced in futures studies which makes them amateurs in that sense.

Future workshops are traditionally comprised of the following phases<sup>94</sup>:

*The preparation phase* means planning and organizing the future workshop.

*The critique phase* includes mapping the present by analysing the present problems.

*The imagination phase* is a free brainstorming session and resultant solutions for the problems and ideas for building the future.

---

<sup>91</sup> Nurmela 2013, 213-214.

<sup>92</sup> Jungk & Müllert 1987. Finnish translation *Tulevaisuusverstaat – käsikirja demokratian elvyttämisen mahdollisuuksista*.

<sup>93</sup> Jungk & Müllert 1987, 7.

<sup>94</sup> See for example Nurmela 2013, 214-215. Original phases from Jungk & Müllert 1987.

*The realization phase* involves searching for the concrete models for realizing the preferable futures.

*The post action phase* can involve writing a report, publishing the results, suggestions for the next steps and implementation of a project.

Adapting the future workshop method to my research topic and research questions required some modifications for the different phases. The preparation, critique and imagination phases, I could include in the workshop. The realization phase I had to keep quite short due to a limited amount of time. Questionnaire answers revealed that some of the participants would have liked to have more time for realization or they would have liked to continue developing the ideas from the workshop. The post action phase in this case for the participants was answering the questionnaires and for me gathering the questionnaire answers. This thesis works as a result from the post action phase as it is the only report written about the workshop.

### 3.2 Researcher's position

My role in the workshop was leading the day and participating the conversation. I was not only observing the workshop as a researcher from the outside but also participating and keeping up the conversation. As a clothing design student and clothing designer of the future I also belong to the focus group and could have been a participant in the workshop. Other similarities that I had with the participants were gender and age as all participants were female students age between 20 and 30 years.

One of my tasks was to introduce futures studies field and my research topic to the participants. It was challenging to present futures studies with a neutral tone because I was already convinced that futures studies could be a good field for clothing designers to know. It is possible that coming from same educational background from the same university my ideas would meet with the participants' thoughts better than if we would have had different backgrounds. Keeping the challenges in mind, I had to find out if my assumption about the usefulness of futures studies in clothing design would be supported or disproved by other clothing designers of the future.

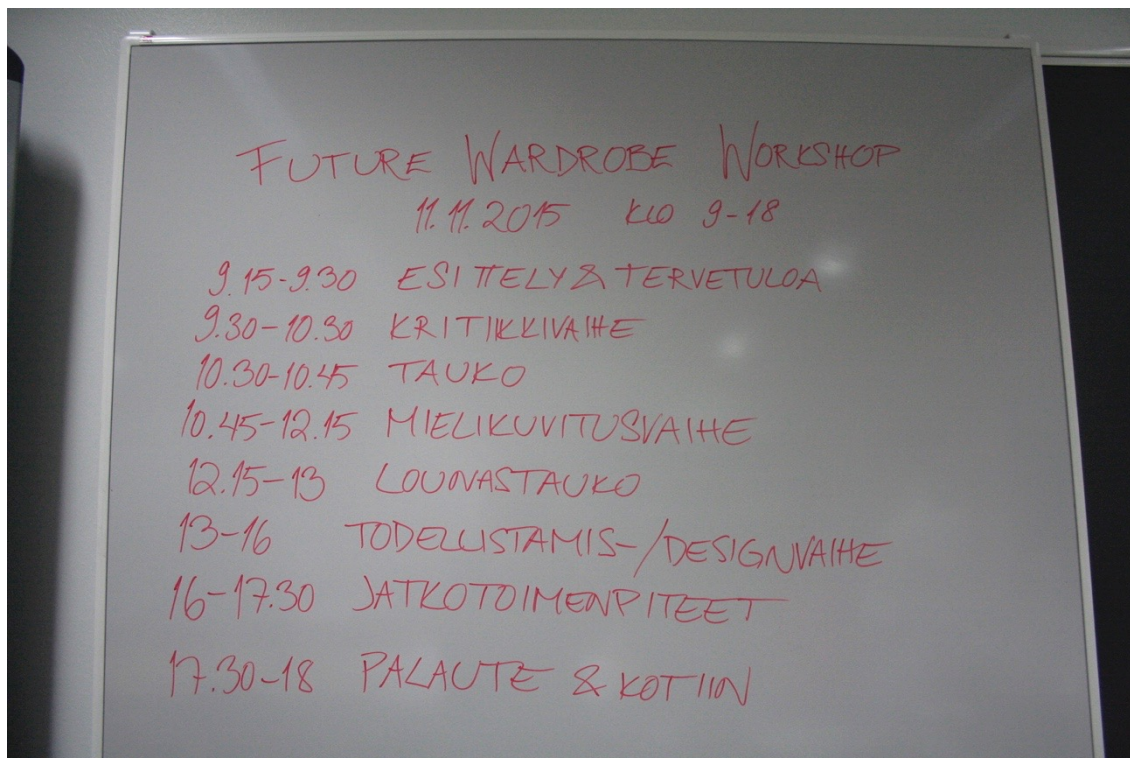
### 3.3 The programme of the workshop

#### 3.3.1 Preparation phase

I started planning the workshop in September 2015. I considered different options for the place and the date of the workshop. It would have been delightful to organize the workshop in an unusual space outside of the university but for practical reasons I decided to yield up the idea. I asked the assistant of Clothing Design which dates on the week 46 would be the best possible day for the workshop so that as many students as possible would be free to attend the workshop. I booked one of our Clothing Design classrooms in the Faculty of Art and Design where I knew that the workshop would be possible to arrange. The classroom F3113 was ideal for the workshop because it was familiar both to me and to the participants which made me feel comfortable. I knew where I would find all the equipment and if I didn't find something I knew whom I could ask. I constructed a PDF invitation (Appendices 1 & 2) with a cover message and sent it to all clothing design students of the University of Lapland via an e-mail list. I did not set any other demands to the participants except that they should have clothing design as their major or minor subject. The year of the participants' studies did not make any difference. The number of participants was a subject for me to deliberate. First, I thought I could have a group of fifteen to twenty people but I soon realized that in a smaller group the dialogue would be easier to follow and to document. I delimited the number of participants to nine (9) but I was ready to take more participants in case there would have been more than nine interested in the workshop. I sent the e-mail to the assistant on 28<sup>th</sup> of October and she delivered it to the mailing list on 30<sup>th</sup> of October. By the workshop I received eight (8) enrolments from the students. To the enrolled students I sent additional information a day before the workshop. In the morning of the workshop I received one cancellation so the final number of the participants was seven (7). It turned out to be a workable group size.

Future Wardrobe Workshop took place on Wednesday 11<sup>th</sup> of November 2015. I arrived to the university two hours before the start time of the workshop. I arranged the furniture in the classroom to make the space more functional. I put the tables aside and chairs in a half circle in the middle of the room. In front of the chairs I put a removable board where I attached a big paper where we would write down our ideas. I cut more

papers ready for different parts of the workshop and put sticky notes and pens ready on the table. I set the video camera that I had borrowed from the university for documentation. I wrote down the schedule of the day on a white board.



*Schedule of the workshop.*

*9.15-9.30 Introduction & Welcome, 9.30-10.30 Critique phase, 10.30-10.45 Break, 10.45-12.15 Imagination phase, 12.15-13 Lunch break, 13-16 Realization/design phase, 16-17.30 Action planning/Next steps 17.30-18 Feedback & Home*

The workshop started about fifteen minutes after the scheduled starting time due to the participants' late arrival. One of the participants was not present in the first part of the workshop. However, the atmosphere was just as relaxed as I had hoped so we did not feel like we were in a hurry. Most of the participants were familiar to me, so I had spoken about my thesis with them. Some of the participants were already interested in the workshop before I had even sent the invitation via e-mail. I was concerned if seven participants would be enough but luckily they were all talkative and enthusiastic about the topic. The participants were all female between 20 to 30 years old. Six participants had clothing design as a major subject and one as a minor subject.

To open the workshop, I wished the participants welcomed, and introduced my thesis and myself. As a part of the introduction I showed a short scene from the film *Her* and explained how the costume design of the film had inspired me to study the future of

clothing. I asked the participants' permission to document the workshop with video camera and digital still camera. Next, I shortly introduced the field of futures studies and the future workshop method. Then, I gave post-it notes and pens to participants so they could write down ideas during the discussions. In a group discussion it is good to give everyone paper and pen because the bookkeeper is not able to write everything down that was said. My original plan was that one of the participants would have been the bookkeeper at a time but I shortly noticed it was easier that I wrote the ideas on a big board meanwhile the participants would write additional comments on the notes. Those notes we stick on the boards and they became additional data that supported the video and photo material.

### 3.3.2 Critique phase

I introduced the critique phase by telling that we were supposed to think of the present problems that clothing has in 2015. I had written title "Problems in clothing 2015" on a big white board beforehand. As it turned out nobody wanted to say the first problem so to "break the ice" I started the conversation by complaining about the difficulties that I face when I have to carry several items at the same time, like I had to do when I walked to the university for the workshop. With my example I wanted to show that the problems can be as simple as that and that there are no right or wrong answers. Quickly the discussion about the present problems started but very soon it spread from problems to solutions. The participants had difficulties to focus only on the problems which I believe is because as design students they are used to solving the problems instead of only settle for mentioning the problems.





by imagining the things that I would soon tell them. The idea was that everyone would think about the future from their own perspective and in this way create their own *preferable futures* in their minds. I wanted to raise positive and hopeful thoughts after the critique phase, and make the participants feel that everything is possible in the future. When everyone had closed their eyes I put calm, futuristic sounding music on the background and read the following text<sup>95</sup> that I had prepared beforehand.

*“You wake up at home, what does it look like there?*

*You do your normal morning routines, what are those? If you read, watch or listen to the news, what are the news about?*

*You start dressing up for work. You open your wardrobe, what do you see?*

*What is inside your wardrobe?*

*You compare two different outfits, from which you end up choosing one, why did you choose that one?*

*You turn around in front of a mirror, what does your reflection look like? You are now ready to leave for work or other duty.*

*Next, imagine your work place or other major duty in 2045.*

*Where is your work place? How is your work environment? Who do you work with?*

*What is your position? What is your job description?*

*Imagine your day in your work or duty: what do you do and with whom? What kind of tasks do you have? Who do you meet during the day?*

*After work or duty, you meet your friend with whom you discuss about the hottest topic of the day, what is it?*

*In the evening you spend time with your favourite hobby, what is it?”*

Soini-Salomaa (2014) used future stories method to collect data from craft and design students in her doctoral research. The students wrote stories about their professional future in year 2020 by answering questions in an online questionnaire. The questions were categorized under six themes. The questions that Soini-Salomaa asked from the students in order for them to imagine their professional future, were set in a similar way to the questions in my futures story task. For example, the first question in Soini-Salomaa’s future story questionnaire was: *“It is the beginning of September in 2020.*

---

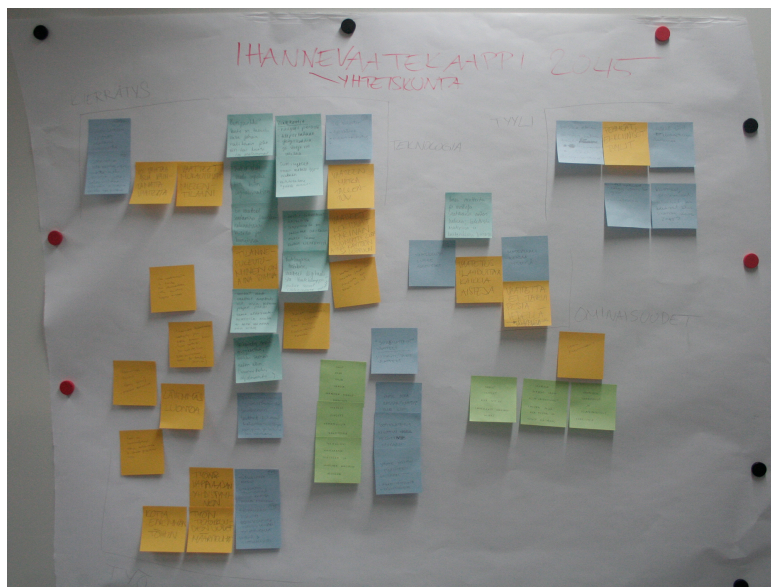
<sup>95</sup> The original text in Finnish and the translation are done by me.



*You wake up in the morning and you think about the upcoming day and what is has to bring. What are your plans for the day? How is your working day going to be like?”*<sup>96</sup>

Instead of making the participants of FWW to write their stories, I decided to let them have the whole story in their minds and discuss the stories together afterwards. This was to save time in a short one-day workshop, and also to make the task more interactive. Futures stories can be very personal, so in some groups it would be better to make the stories anonymously. In this case, the participants knew each other so they did not have problems to share their stories to each other.

The goal of the task was to open a discussion about the preferable futures of each participants and finally create a common *vision* from the stories that participants had imagined. I started the discussion by asking participants about their stories and how the clothing was like in 2045 in their imagination. I also asked, that if they imagined themselves working as clothing designers, what would they design then. I gave the participants a few minutes to write notes about the things they imagined in their future stories. Then, one by one, the participants presented their notes and put them on the board with a topic “Preferable wardrobe 2045”. Later I added there a word “society” because some of the ideas were about the future society and not about clothing.



*Preferable wardrobe in 2045 divided in themes of Recycling, Technology, Style and Properties.*

---

<sup>96</sup> Soini-Salomaa 2014, 116-118.



## Vision

Part of the imagination phase was to create a common vision for year 2045. Rubin (2003) says that vision is “an active will defined by a person, a group, an organization or some other actor”, in this case the participants of the workshop. Realizing a vision requires activity and changes in actions by the actor. Vision is a general view about the possible and preferable images of the future, and what it takes to get there.<sup>97</sup> In the vision part of the workshop we discussed the participants’ time travels and how they had imagined that the clothing would be in 2045 if they could decide. Through the discussion we were trying to find common features and values that all participants would agree on. This was the most difficult part of the workshop as the conversation went easily from the preferable images of the future to criticizing the problems of today and that might occur in the future. After a long discussion we were able to create a vision that includes different images of the future.

<sup>97</sup> Rubin 2003, 905.

### 3.3.4 Realization phase

For realization phase I had planned a clothing design task which I modified according to the participants' suggestions. The original plan was to divide the participants to two or three groups in which the participants would have designed mini collections according to our vision. However, creating the common vision did not work precisely as planned and the participants felt it would not have been pleasant to design something in such a short time. To make the most out of the realization phase, I modified the task to be more like a continuation for the imagination phase. I put a big paper on a table and together with the participants we draw a human body in a natural size on the paper. I divided the participants in three groups of two or three people. I asked the participants to cover the body with ideal clothing in 2045 by using the vision that we had created and the ideas that had come out during the day. One group at a time drew on one part of the body: upper, middle or lower body. In the mean while the other two groups were behind a wall without seeing what the third group was drawing. When the body was fully covered with clothing and accessories, we put the paper up on the wall so the groups could present their ideas. The result was not an ideal future clothing aesthetically but it had interesting details that were reflecting the discussions that we had during the workshop. As an example, the outfit included functions for changing the garment easily as a solution for the problem that was defined in critique phase: *"Clothes are not modifiable enough."*



*Realization phase. One group working on the task.*





*Realization phase.*  
*Left. Text on the note:*  
*“weather alarm”, “air purifier”.*  
*Right. The full drawing*  
*with additional notes.*

### 3.3.5 Post action phase

Post action phase included collecting the questionnaires, analysing the data and writing this thesis which works as a report from the workshop. I had printed the questionnaires on paper to be filled at the end of the workshop but because we were running out of time, the participants preferred to answer the questionnaire via e-mail. I sent the questionnaires right after the workshop and expected to get them back filled within a week. It took a bit longer to receive the questionnaire answers and one participant never sent me the answers. After receiving the questionnaires, I had all the data for the analysis.

## 4. Analysis

### 4.1 Content analysis method

I chose qualitative content analysis method for analysing the data from the Future Wardrobe Workshop. In content analysis the aim is reducing the material in the data<sup>98</sup>. Even though my data is not massive, I wanted to use a method that helps deleting all content that is not relevant and finding the most valid information in a systematic way. I adopted a qualitative content analysis procedure developed by Philipp Mayring<sup>99</sup>.

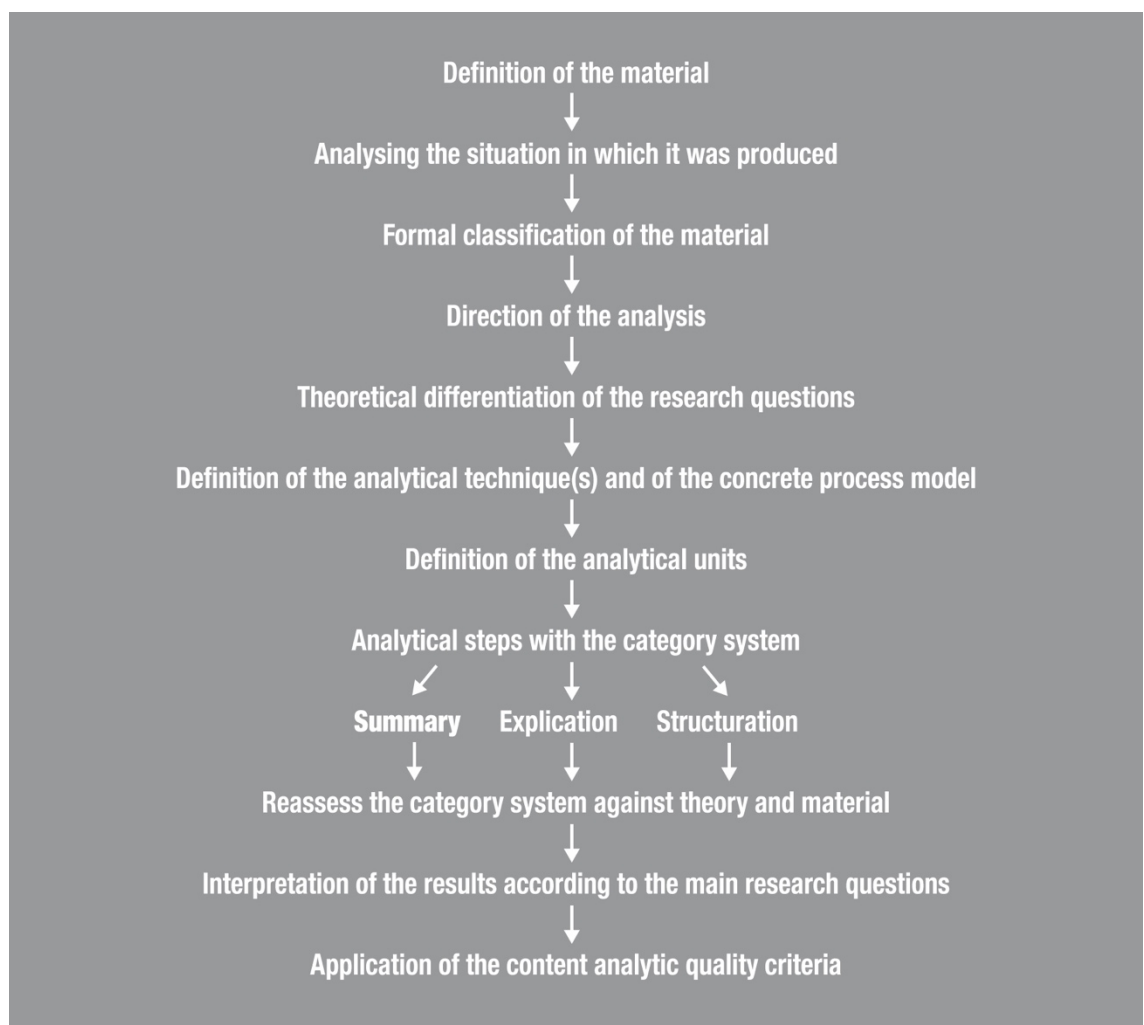


Figure 2. General content analytic process model by Philipp Mayring.<sup>100</sup>

<sup>98</sup> Flick 2009, 323.

<sup>99</sup> Flick 2009, 324-326.

Mayring's general content analytic process model, step-by-step model for summarizing content analysis and rules of summarizing content analysis are originally adapted from Mayring, Philipp: *Qualitative Inhaltsanalyse. Grundlagen und Techniken* (7th edition 1997). Deutscher Studien Verlag, Weinheim.

<sup>100</sup> Flick 2009, 324. See also for example Mayring 2014, 54.

The procedure consists of a general content analytic process model (Figure 2) and three different techniques: summary, explication and structuration.

From the three practical techniques to analyse the data, I chose summary. Mayring has defined the step-by-step model of summarizing analysis (Figure 3) which includes rules for the actual summarizing (Figure 4).

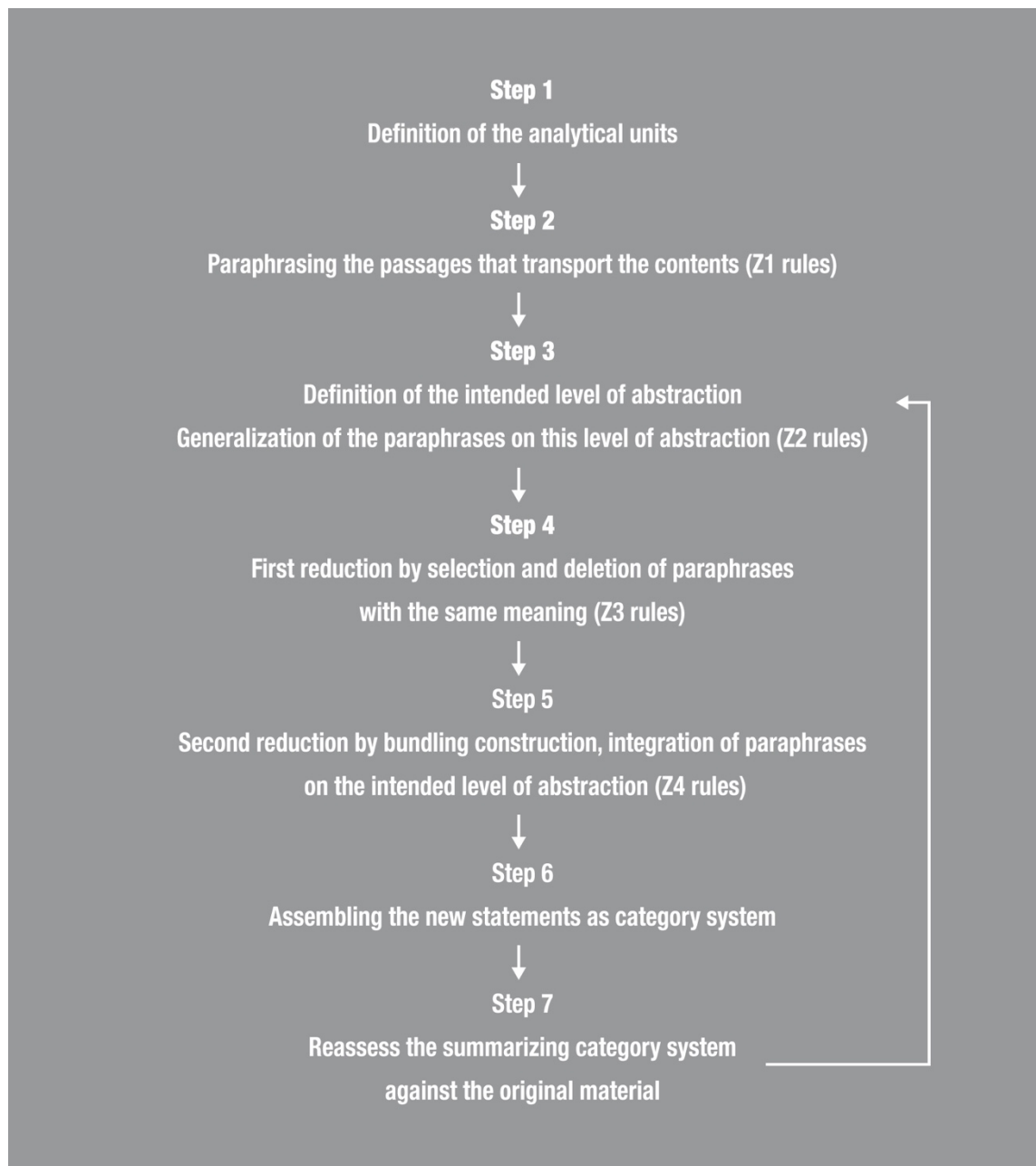


Figure 3. Step-by-step model for summarizing content analysis by Philipp Mayring.<sup>101</sup>

---

<sup>101</sup> Flick 2009, 326. See also for example Mayring 2014, 66.

Figure 3 shows the process of summarizing technique in seven steps. In the general content analysis process (Figure 2) the beginning of the step-by-step model is after “Definition of the analytical technique” (summary). Step 1, “Definition of the analytical units” means defining the text components that are to be analysed. The analytical units are called *coding unit*, *context unit* and *recording unit*. The coding unit is the smallest text portion to be analysed and that can be put under a category. It can be, for example, a single word, a paraphrase or the whole page of text. The context unit instead is the largest text portion to be analysed. The recording unit defines the text portion that is to meet the category system. It can be, for example, one person’s answer to a questionnaire question.<sup>102</sup> Steps 2–5 are unique for summarizing content analysis as they include the rules (Figure 4) of how the summarizing is done. When the summary is ready, category system is created in step 6, after which the category system is reassessed against the original material in step 7.

Mayring says that the content analysis methods “*must always be adapted to suit the individual study*”<sup>103</sup>. The methods cannot be used exactly the same way in all studies. Therefore, I used the steps and rules of the summarizing content analysis as guidelines but allowed myself freedom to make adjustments on the method whenever it was needed.

---

<sup>102</sup> Mayring 2014, 51-52.

<sup>103</sup> Mayring 2014, 40.

## **Z1 Paraphrase**

- Z1.1 Delete all passages that transport no or only little content  
(like ornamenting, repeating, explicating formulations)
- Z1.2 Translate the passages transporting content onto a coherent level of language
- Z1.3 Translate them to a grammatical short version

## **Z2 Generalization to the level of abstraction**

- Z2.1 Generalize the issues of the paraphrases to the defined  
level of abstraction, so that the old issues are included in the new ones
- Z2.2 Generalize the predicates in the same way
- Z2.3 Keep the paraphrases which are above the intended level of abstraction
- Z2.4 Employ theoretical assumptions in cases of doubt

## **Z3 First reduction**

- Z3.1 Delete paraphrases with the same meaning in the analytic unit
- Z3.2 Delete paraphrases which are not seen as substantial  
on the new level of abstraction
- Z3.3 Keep the paraphrases that are still seen as  
transporting central contents (selection)
- Z3.4 Employ theoretical assumptions in cases of doubt

## **Z4 Second reduction**

- Z4.1 Summarize paraphrases with identical (similar) issues  
and similar statements to one paraphrase (bundling)
- Z4.2 Summarize paraphrases with several statements  
about one issue (construction/integration)
- Z4.3 Summarize paraphrases with identical (similar) issues  
and different statements to one paraphrase (construction/integration)
- Z4.4 Employ theoretical assumptions in cases of doubt

*Figure 4. Rules of summarizing content analysis by Philipp Mayring.<sup>104</sup>*

---

<sup>104</sup> Flick 2009, 325.

See also for example Mayring 2014, 68.



## 4.2 Questionnaires

I had printed the questionnaires on paper to give them to the participants at the end of the workshop. The idea was to fill in the questionnaires as a part of the workshop. Unfortunately, we were running out of time and the participants wished for a digital questionnaire instead claiming that they would have more time and focus to write it at home. My fear was that I would not get all the answers back which happened with one participant despite several reminders so at the end I had six (6) sets of answers to work with. In the workshop I explained that the questionnaire is not feedback from the workshop but an important part of my research data, and therefore hoped for rich and thoughtful answers. Some participants had notably paid more time and thought for responding that could be seen in the level of profundity of the answers but overall I was satisfied with the data.

When I had received all the answers to my e-mail, I downloaded them to my computer without reading them, and put them to one file. I wanted to work with the data without knowing which participant gave which answers. It was not important to know the details of the respondent of each answer in this analysis because the participants were alike in terms of gender (female), age group (20–30 years old young adult) and profession (clothing design student). To achieve this anonymity for the respondents I deleted all the general information, such as age and year of studies, from the file where I collected all the answers. I kept in mind that I could always return to the original files if there was a reason to see which answers were from the same respondent.

The questionnaire questions were divided into three categories: 1) future workshop as a method, 2) futures studies in clothing design and 3) clothing of the future. In the beginning I kept the passages under the category where they belong but during the analysis the categories changed and new categories were born.

### *Summarizing analysis*

Step 1 in summarizing content analysis model is “Definition of the analytical units”. I defined the analytical units as follows:

The coding unit: *One participant's one-word answer to one questionnaire question*

The context unit: *One participant's complete answer to one questionnaire question*

The recording unit: *One participant's answer to one questionnaire question*

Questionnaire answers are always answers to a specific question so I could not analyse the analytical units without knowing to which question they were answers to, especially in the case of coding units. Keeping that in mind, I kept the questionnaire questions next to the answers even later when the categories were re-formed and the analytical units summarized.

To begin with the paraphrasing (Z1 rules), I put all the questions and answers into the same file. Then I made a new text file where I added only those parts of answers that had some content excluding everything without content. All the workshop participants were Finnish so the workshop was held in Finnish and also the questionnaires were in Finnish. I translated the answers to English but I kept the Finnish answers along through the analysis process in order to check that the translation still coincides with the original answer. Translating passages onto good language happened naturally when I translated the passages to English. The passages that had some content were quite short from the beginning, so shortening them was not necessary. As the questionnaire answers were in written form, they were grammatically on quite a high level.

When moving to step 3 (Z2 rules), I started using keywords that helped me when generalizing the issues. With the keywords it was easy to see which passages had similar thoughts behind them. When generalizing the analytical units, I had to be careful not to drop any significant information. In some cases, the most interesting content was in single words.

Steps 4 and 5, the first and second reduction of the material (Z3 and Z4 rules), I did more or less on the same round of analysis. On the first reduction I simplified the analytical units by deleting the issues that did not give anything new for the paraphrases. At the same time, it was easy to summarize the analytical units that had similar content.

The questionnaire questions were originally under three categories:

- 1) *future workshop as a method*
- 2) *futures studies in clothing design*
- 3) *clothing of the future*

In step 6 it was time to look at the categories again and reflect them to the summarized questionnaire answers. During the analysis the categories evolved into four new categories replacing the original categories:

- 1) *futures studies and clothing design*
- 2) *influencing the future of clothing*
- 3) *importance of searching the future of clothing*
- 4) *future workshop as a method*

Step 7 involved reassessing the new categories against the original analytical units how they were before summary. This step worked as sort of a test for the new categories so that also the original questionnaire answers would fall under the same categories. I kept the categories quite broad and some questionnaire answers could fall under more than one category.

#### 4.3 Video and photo material

In qualitative content analysis the collected data is usually text. In the case of video and photo material, I could either make a transcription from the material and analyse that, or analyse the data directly as if it was text by watching the videos and looking at the photos. According to Mayring (2014) making a transcription can sometimes take too much time and resources, so in those cases the analysis can be done for the recorded data without a transcription<sup>105</sup>. For answering my research questions, the questionnaire answers were more relevant, and the videos and photos worked as supporting data. The video material was large because I recorded the whole workshop so it would take a lot

---

<sup>105</sup> Mayring 2014, 44.

of time and resources to make a full transcript. Therefore, I did the summarizing analysis for the videos and photos directly for the material.

The video material consists of moving image and sound. The purpose of the material was to save the conversations and happenings that occurred in the workshop. I could have saved the discussions by recording only the sound without video. However, the workshop included some activity, like the participants putting their notes on the board and explaining them at the same time, so it was useful to see the actions as well. The material was filmed with a video camera that I borrowed from the university. I set the video camera on a stand so I did not have to hold it. The participants were seated in a half circle and the video camera was set in a way that all the participants including myself were visible on the video. The photo material consists of photos that I took during and after the workshop with my own digital camera. The most relevant photos for the data are the photos of the boards with notes. Because the video and photo material support each other and contain information from the same issue, the discussions and the events of the workshop, I decided to analyse the materials together.

#### *Summarizing analysis*

I defined the analytic units for video and photo material as follows:

The coding unit: *One participant's one-word comment on a video or a one-word note in a photo*

The context unit: *A discussion about a specific topic or a board with notes in a photo*

The recording unit: *Comments on the same topic by the participants or notes on a board under a topic*

I watched the video material phase by phase and wrote down those comments carrying some relevant or interesting content. Categories were initially created already in the workshop as we put notes on boards under different topics. I analysed the comments and notes with the summarizing analysis rules. The results of the analysis are presented in the next chapter.

## 5. Findings

### *Futures studies and clothing design*

The participants' attitude towards the field of futures studies changed from curiosity and excitement to confidence that futures studies is a field that should be taken seriously. All the participants saw potential in futures studies as a field that could be useful for clothing designers. The ideal relationship between futures studies and clothing design was seen both, as collaboration where the two fields work together with some topic, and as more one-directional actions where futures studies helps clothing design or futures studies methods are adapted to clothing design.

*“With the help of futures studies it could be possible to deliberate the big lines of development and to outline better also the near future and justify decisions.”*

Multidisciplinarity was well accepted. There were several ideas about how futures studies can help the designers to see their own field from another perspective.

*“Futures studies helps designer to perceive ethical, ecological and moral problems related to fashion business, clothing industry and creative work.”*

*“Futures studies challenge the designer to view their own design philosophy and values in relation to the tradition of clothing field and to think potential ways to solve the problems that dominate the field in long term.”*

The participants gave also some more practical examples on how they think that futures studies could help clothing design.

*“Futures studies can help avoiding the production of unnecessary clothing to the market. For example, a research shows that the demand of a certain piece of clothing will decrease.”*

*“Designers could use futures studies in forming their own personal future vision and by that also in design work.”*

### *Influencing the future of clothing*

When asked if they believe in their possibilities to affect the future of clothing, the participants mostly thought that it is the designers' duty to try to do so. They did not think that designers alone can decide on what the clothing will be like in the future but that also an individual designer can have affect at least on a local level.

*“Clothing designer has power to affect the future visions about clothing. However, realising world-changing visions requires seamless collaboration between the actors of the field and change in “societal attitude climate”.”*

*“The development of the clothing is not necessarily only in the hands of the designers but it is the designer's work at least to channel the influences to clothes.”*

### *Importance of searching the future of clothing*

The participants thought that it is important to search the future of clothing. Knowledge of the time, both the past and the future, is always relevant for clothing designers. A common thought was that clothing designers are always designing for the future, therefore it is important to know and understand it.

*“Understanding/knowledge of the spirit of the times and attitudes is useful and necessary in clothing designer's work.”*

*“Searching the clothing of the future is even more important than searching the clothing of the past.”*

*“I am interested in the idea of how clothing design can influence general attitudes, create new or support emergent, still formless phenomena, how values and thoughts can be added to clothes, and how choices affect in larger scale.”*

*“Designers should have an access to scientifically proven information about the future state, so that for example the structures of the field could be reshaped.”*

### *Future workshop as a method*

Future workshop was a new method for all participants. Overall Future Wardrobe Workshop was a positive experience for them which could be seen in the questionnaire answers and heard in our conversations during and after the workshop.

Future workshop was received as a method that the participants could use also in working life. Especially the participants liked how the method includes group work.

*“Sharing ideas in a group is also an excellent way to broaden individual designer’s vision about the future.”*

The idea of not staying in the usual time range of the design process was well received even though it was sometimes difficult to think that far in the future.

*“It was good to think about things further in the future and not just stay in the normal thinking model where you think about things a couple of years ahead.”*

According to the participants, one of the most positive sides of the workshop was that there was enough time for discussion.

*“The workshop was a pleasant way to deal with the subject because searching for answers to big questions often requires going through a multilevel and multidimensional process.”*

The participants were willing to participate a future workshop again. Some were even describing what kind of future workshops they would like to participate.

*“I would be interested in participating a workshop that was directed to people who are not clothing designers or students of clothing design.”*

*“In my dream future workshop there would be a group of bold visionaries who would not be afraid of bringing up ridiculous-sounding future visions and who would participate in the conversation actively and analytically. In that workshop we would*

*also go ahead from words to actions and after a thorough analysis we would start making utopian future visions reality.”*

#### *Future wardrobe in 2045*

During the one-day workshop we were able to create some images of the future wardrobe but we did not define the plan and actions that would lead us to the most preferable future. Even though the images of the future that were created in the workshop are not in the focus of this research as analysing them would not answer my research questions, it is relevant to analyse the discussions in order to understand how the workshop went and what kind of outcome it resulted.

In the beginning of the workshop we discussed the problems in clothing in 2015. It was clear that those problems should not exist in the preferable future in 2045 if the participants can decide. We spoke about the problems of clothing industry as well as the people’s attitudes towards clothing.

*“People do not have relation to clothes anymore.”*

We discussed how today people do not have feelings towards clothes which could be partly because people do not make their own clothes anymore. 3D printing was mentioned as a possible solution for the problem. If people could make and personalize their clothes easily at home, perhaps they would value their clothes more. We spoke about shopping hysteria and how buying clothes is often related to superficial, transient emotions. When those emotions fade, the clothes lose their value in the owner’s eyes and can easily be thrown away. Consumers want new clothes all the time but certain things remain the same and old styles from past decades are brought back to fashion.

*“It would be exciting to test the consumers how well they notice the differences between the collections.”*

Creating long-lasting solutions for consumers was a common interest for the participants. People have different periods in life when their clothing changes and especially during their youth people go through different styles, which was accepted as a challenge for a sustainable wardrobe.



*“Clothes have only one role at a time.”*

We discussed also the versatility of clothes and how they today are only meant for one occasion or climate. Different technological innovations, such as a button to make the garment lighter when coming indoors, were suggested as solutions.

In the imagination phase the participants “travelled” to year 2045 by creating their preferable future in their minds with the help of the text that I read aloud. Some participants felt it was difficult to get rid of the ideas that science-fiction films had given them, such as white interiors.

We discussed a lot about technology and how it is going to affect the future of clothing.

*“Even though the World has digitalized so far, yet the wardrobe is still not digitalized.”*

In the future choosing clothes could be easier with the help of technology. The participants were suggesting, for example, a sort of a digital library, “Spotify for clothes”, where you could choose the clothes for the day according to suggestions or old favourites. Another idea was a “3D shower” where the clothes would be showered on your body. Similar ideas were presented, and it seemed like technology had a big role in the future of clothing in almost all future stories. Despite the high-tech ideas that would help the everyday life in the future, the participants also hoped that humanity, wisdom and values would be existing in 2045. Some imagined their hobbies to be related to the nature, animals and other soft values even if their everyday life would be surrounded by technology. That kind of seek for opposite activities can be seen already today as a trend. Technology should not be added to garments only for the sake of technology but it should have a real function too. It could also be that the technology is not in the garment but in the process of creating the garment. Participants were also worried about the fast development of technology. What happens to the old machines and how could they be recycled?

Recycling was one theme that rose in the discussion. In the ideal future of one participant all the waste would be recycled and in use. Another participant was wondering how to make the favourite clothes of today to last until 2045.

We discussed also about work in 2045. One of the participants imagined to work in a high-tech clothing company who would produce only one collection per year. One participant was wondering if there will be work at all or will robots do everything in 2045. Common thought was, however, that designer's work cannot be done completely by machines because designer's expertise comes from a long process and that makes designer's job valuable also in the future.

One part of the imagination phase was creating a vision for the future of clothing. The vision was supposed to be an ideal future state for clothing in 2045. It was not easy to come up with describing definitions for the thoughts that were brought up but at the end we defined our vision as follows:

*Comprehensive use of materials*

All the material that is produced by now would be in use and nothing would be wasted.

*Transparency of knowledge and sharing expertise*

Innovations, that are for common good, would be available for everyone to use.

*Clothing as an investment*

Emotions, that people used to feel for clothes when they were self-made or expensive, would be back and people would value their clothes more.

*Emancipation from norms of clothing*

Restrictions, that cultures have set, would be broken and people would be able to wear whatever they like without caring about age, gender or the type of work they have.

*Versatility*

Clothes would have many roles, and they could easily be modified.



## 6. Conclusions

For the participants the Future Wardrobe Workshop was the first view to the field of futures studies. The questionnaire answers and the discussion after the workshop revealed that they got a positive first impression. They saw a lot of potential in both, collaboration between the two fields, futures studies and clothing design field, and futures studies adapted to clothing design.

Futures studies was seen as a field of that sort of knowledge that would be useful for clothing designers. The participants thought that futures studies could help designers for example in creating future visions, facing the problems of clothing industry and broadening their perspective.

The conclusions are made from thoughts of a small group of clothing design students after participating a one-day workshop, so very general views cannot be made. However, seeing that all the participants had similar feelings makes me think that the workshop could be as minimum a good starting point for a discussion.

Working in a group was one of the most valued feature of the workshop. Different kind of groups can come up with different kind of results from the same topic. Group of designers would discuss the topic of future clothing from a different perspective than a group of future researchers or group of consumers. The most interesting results could be born when the group is mixed with people from varying backgrounds and relationships with the subject.

This research is not a futures research where the results would be future scenarios and an action plan for accomplishing those scenarios because of my inexperience from the field. Also, my research questions were not in the future but in the present. My goal was not to create images of the future but to find out how to create them in a future workshop. However, some images of the future were born in Future Wardrobe Workshop, and they could be analysed more in depth in another research. Now, that I am more experienced and even more excited about futures studies, I would like to do a study where the images of the future clothing would be created and analysed with more futures studies methods and more participants involved.

Future workshop and futures wheel are futures methods that are already known and used in design and clothing research in Finland<sup>106</sup>. Yet, in the industry future is mostly thought only a few years ahead. How to bring futures thinking and futures consciousness to the companies? Soini-Salomaa (2013) sees that culture education should include futures education and future working in all levels<sup>107</sup>. It would give students more thoughts about their careers and broaden their perspective when planning the future. I believe that futures education on all levels and fields, not only on culture field, would be beneficial not only for the students themselves but for their future workplaces and for the society as the workers of tomorrow would carry futures consciousness with them to their future jobs.

Futures researchers are specialists in their own field and have the best understanding of the methodologies and theories of futures studies. Therefore, designers who wish to use futures studies in their work should preferably have direct contact to the future studies field instead of trying to use the methods and the material by themselves. In bigger

---

<sup>106</sup> See Nuutinen (2015) and Soini-Salomaa (2013).

<sup>107</sup> Soini-Salomaa 2013, 247.

companies where futures studies can be useful, not only in design point of view but for the whole business, starting a collaboration with professional futures researchers could be a good investment.

In order to create preferable images of the future, ideas of future situations that would be ideal, it is important to use democratic methods. For people who do not care about style, or what they wear and who do not think that dressing up is a good way for them to express themselves, the preferable image of the future of clothing could be a world of minimalism and uniforms where everyone would dress exactly the same way. For fashion lovers that would be a nightmare and a dystopic image of the future. How to find a balance and create a vision that is satisfying for everyone? Future workshop is a rather democratic method especially if a lot of people with different backgrounds can be involved. In Soini-Salomaa's (2013) research, one aim for using the future workshop method was changing the participants' way of thinking from being a viewer to being an actor<sup>108</sup>. People should be able to feel that they can affect the future. I believe that is a key factor in order to make people act for the better future.

The World is in constant change and the changes seem to happen faster than ever before. Human kind is facing major challenges such as global warming and explosive growth of population, so we have to be prepared for those challenges. In clothing industry, visions are created a few years ahead which is enough for the making business but not enough for facing the challenges that we will face in the following decades. We have to be prepared with the right action, and that action has to happen now. Proactive thinking is required when educating the future decision-makers: what will our future be like and what are we going to do in the future? Future researchers have created excellent tools to "see into the future", so why would not we use them?

---

<sup>108</sup> Soini-Salomaa 2013, 110.

## References

Published

**Aaltonen, Mika & Jensen, Rolf, 2012.** *Mr & Mrs Future Ja 5 Suurta Kysymystä.*

Translation Niemi, Veikko, illustration Eiskonen, Hans, Talentum, Helsinki.

**Amara, Roy, 1981.** *The Futures Field. Searching for definitions and boundaries.* The Futurist, Vol 15, February, pp. 25-29.

**Bell, Wendell, 1997a.** *Foundations of futures studies: human science for a new era.*

*Vol. 1, History, purposes and knowledge.* Transaction Publishers, New Brunswick, New Jersey.

**Bell, Wendell, 1997b.** *Foundations of futures studies: human science for a new era.*

*Vol. 2, Values, objectivity and the good society.* Transaction Publishers, New Brunswick, New Jersey.

**Flick, Uwe, 2009.** *An introduction to qualitative research* (4<sup>th</sup> edition). SAGE, London.

**Heinonen, Sirkka, 2013.** *Esipuhe.* Published in *Miten tutkimme tulevaisuuksia?* edit.

Kuusi, Bergman & Salminen. Tulevaisuuden tutkimuksen seura ry, 3<sup>rd</sup> revised edition, Vammalan kirjapaino, Sastamala.

**Heinonen, Sirkka & Kurki, Sofi & Kuusi, Osmo & Ruotsalainen, Juho &**

**Salminen, Hazel & Viherä, Marja-Liisa, 2013.** *Tulevaisuudentutkimuksen käsitteitä.*

Published in *Miten tutkimme tulevaisuuksia?* edit. Kuusi, Bergman & Salminen.

Tulevaisuuden tutkimuksen seura ry, 3<sup>rd</sup> revised edition, Vammalan kirjapaino, Sastamala.

**Jungk, Robert & Müllert, Norbert R., 1987.** *Tulevaisuusverstaat – käsikirja*

*demokratian elvyttämisen mahdollisuuksista.* Keskinäisen Sivistyksen Seura – Suomen Lataamo, Finnish transl. Kai Vaara, Waskipaino, Karkkila.

**Kamppinen, Matti & Malaska, Pentti & Kuusi, Osmo, 2003.**

*Tulevaisuudentutkimuksen peruskäsitteet.* Published in *Tulevaisuudentutkimus.*

*Perusteet ja Sovellukset.* edit. Kamppinen, Kuusi & Söderlund, Suomalaisen

Kirjallisuuden Seuran Toimituksia 896, Helsinki, 2<sup>nd</sup> revised edition, Tammer-Paino Oy, Tampere.

**Malaska, Pentti, 2003.** *Tulevaisuustietoisuus ja tulevaisuuteen tunkeutuminen.*

Published in *Miten tutkimme tulevaisuutta?*, edit. Vapaavuori & von Bruun,

Tulevaisuuden tutkimuksen seura ry, 2<sup>nd</sup> revised edition, Tammerpaino Oy, Tampere.

**Mannermaa, Mika, 1991.** *Evolutionaarinen tulevaisuudentutkimus.*

*Tulevaisuudentutkimuksen paradigmojen ja niiden metodologisten ominaisuuksien tarkastelua.* Tulevaisuuden tutkimuksen seura ry, 1<sup>st</sup> – 2<sup>nd</sup> edition, Valtion painatuskeskus, Helsinki.

**Mannermaa, Mika, 1993.** *Tulevaisuudentutkimus tieteellisenä tutkimusalana.*

Published in *Miten tutkimme tulevaisuutta?*, edit. Vapaavuori & von Bruun,

Tulevaisuuden tutkimuksen seura ry, 2<sup>nd</sup> revised edition 2003, article from 1993, Tammerpaino Oy, Tampere.

**Nurmela, Juha, 2013.** *Tulevaisuusverstas ja uusia “verstashenkisiä” tulevaisuuden muovaamisen menetelmiä.* Published in *Miten tutkimme tulevaisuuksia?*, edit. Kuusi, Bergman & Salminen, Tulevaisuuden tutkimuksen seura ry, 3<sup>rd</sup> revised edition, Vammalan kirjapaino, Sastamala.

**Nuutinen, Ana, 2004.** *Edelläkävijät – Hiljainen, implisiittinen ja eksplisiittinen tieto*

*muodin ennustamisessa.* Publication Series of the University of Art and Design Helsinki A 53. University of Art and Design, Helsinki.

**Nuutinen, Ana, 2015.** *The Future of Arctic Clothing.* Published in *Arctic Wears.*

*Perspectives on Arctic Clothing*, edit. Konola & Kähkönen. Lapland University of Applied Sciences Publication Series B. Reports 10/2015, Rovaniemi.

**Rubin, Anita, 2003.** *Tulevaisuudentutkimuksen käsitteitä*. Published in *Tulevaisuudentutkimus. Perusteet ja Sovellukset*. edit. Kamppinen, Kuusi & Söderlund, Suomalaisen Kirjallisuuden Seuran Toimituksia 896, Helsinki, 2<sup>nd</sup> revised edition, Tammer-Paino Oy, Tampere.

**Soini-Salomaa, Kristiina, 2013.** *Käsi- ja taideteollisuusalan ammatillisia tulevaisuuskuvia*. Kotitalous- ja käsityötieteen julkaisuja 32, Käyttätymistieteellinen tiedekunta, Opettajankoulutuslaitos, Helsingin yliopisto, N-Paino Oy, Lahti.

**Söderlund, Sari, 2003.** *Tulevaisuudentutkimuksen keskeisiä vaikuttajia*. Published in *Tulevaisuudentutkimus. Perusteet ja Sovellukset*. edit. Kamppinen, Kuusi & Söderlund, Suomalaisen Kirjallisuuden Seuran Toimituksia 896, Helsinki, 2<sup>nd</sup> revised edition, Tammer-Paino Oy, Tampere.

**Söderlund, Sari & Kuusi, Osmo, 2003.** *Tulevaisuudentutkimuksen historia, nykytila ja tulevaisuus*. Published in *Tulevaisuudentutkimus. Perusteet ja Sovellukset*. edit. Kamppinen, Kuusi & Söderlund, Suomalaisen Kirjallisuuden Seuran Toimituksia 896, Helsinki, 2<sup>nd</sup> revised edition, Tammer-Paino Oy, Tampere.

**Yelavich, Susan, 2014.** *Introduction*. Published in *Design as Future-making*, edit. Yelavich & Adams, Bloomsbury, London.

Electronic sources

**Catchman, Dina.** *Casey Storm Interview. How “Her” Created The Men’s Fashion Look Of The Future*.

AskMen UK.

Retrieved from <http://uk.askmen.com/fashion/interview/casey-storm-interview.html>

Date not available. Accessed 7.9.2015.

**Cavallo, Sofia, 2013.** *‘her’ by OC: Costume Designer Casey Storm on Styling Spike Jonze’s Latest Film*.

Opening Ceremony blog.



Retrieved from <http://www.openingceremony.us/entry.asp?pid=8959>

Dated 18.12.2013. Accessed 4.9.2015.

**Finland Futures Academy (FFA).**

<http://www.utu.fi/en/units/ffa/Pages/home.aspx>.

Accessed 19.3.2017.

**Finland Futures Research Centre (FFRC).**

<http://www.utu.fi/en/units/ffrc/Pages/home.aspx>

Accessed 19.3.2017.

**Futuribles.**

<https://www.futuribles.com/en/>.

Accessed 19.3.2017.

**Her official website.**

Retrieved from <http://www.herthemovie.com/#/home>

Date not available. Accessed 9.9.2015.

**Kucharski, Joe, 2014.** *A Comfortable Future: The Costume Design of Her.*

Clothes on Film.

<http://clothesonfilm.com/a-comfortable-future-the-costume-design-of-her/34652/>

Dated 13.2.2014. Accessed 4.9.2015.

**Mayring, Philipp, 2014.** *Qualitative content analysis: theoretical foundation, basic procedures and software solution*, Klagenfurt.

Retrieved from [http://www.ssoar.info/ssoar/bitstream/handle/document/39517/ssoar-2014-mayring-Qualitative\\_content\\_analysis\\_theoretical\\_foundation.pdf?sequence=1](http://www.ssoar.info/ssoar/bitstream/handle/document/39517/ssoar-2014-mayring-Qualitative_content_analysis_theoretical_foundation.pdf?sequence=1)

Accessed 6.1.2017.

**Rubin, Anita, 2004a.**

*Tieteen kentässä.*

TOPI – Tulevaisuudentutkimuksen oppimateriaalit.

Finland Future Research Centre/University of Turku

Retrieved from <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/tieteen-kentassa/>

Accessed 22.2.2016.

**Rubin, Anita, 2004b.**

*Lähestymistavat.*

TOPI – Tulevaisuudentutkimuksen oppimateriaalit.

Finland Future Research Centre/University of Turku

Retrieved from <http://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/lahestymistavat/>

Accessed 29.2.2016.

**Saul, Peter, 2002.** *Using Futures Studies to Design Tomorrow's Products: A Case Study.*

Retrieved from <http://www.petersaul.com.au/designproducts.pdf>

Accessed 29.2.2016.

**The Club of Rome.**

<https://www.clubofrome.org>

Accessed 19.3.2017.

**The Millennium Project.** *Global Challenges for Humanity.*

Retrieved from <http://millennium-project.org/millennium/challenges.html>

Accessed 19.3.2017.

**World Future Society.**

Retrieved from <http://wfs.site-ym.com>.

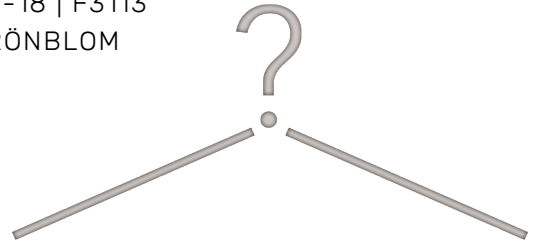
Accessed 19.3.2017.

**Worldwatch Institute.**

Retrieved from <http://www.worldwatch.org>

Accessed 19.3.2017.

KE 11.11.2015 | KLO 9-18 | F3113  
JÄRJ. HELENA GRÖNBLOM



## PERUSTIEDOT

Pääaine

Koulutus

Ikä

### 1. TULEVAISUUSTYÖPAJA MENETELMÄNÄ

Arvioi Future Wardrobe Workshop –työpajaa kokemuksena.

- a) Mitä hyötyä tai hupia työpajasta oli sinulle?
- b) Mikä oli työpajan paras/mieluisin osuus, ja miksi?
- c) Mikä oli työpajan vähiten innostava/turhin osuus, ja miksi?
- d) Haluaisitko osallistua tulevaisuustyöpajaan joskus uudestaan?
- e) Millainen olisi unelmiesi tulevaisuustyöpaja?

### 2. TULEVAISUUDENTUTKIMUS VAATETUSSUUNNITTELUSSA

Arvioi tulevaisuudentutkimuksen menetelmiä osana vaatetussuunnitteluprosessia.

- a) Haluaisitko käyttää tulevaisuudentutkimuksen menetelmiä, kuten tulevaisuustyöpajaa tulevassa työssäsi? Perustele.
- b) Mitä hyötyä tulevaisuudentutkimuksesta voisi olla vaatetussuunnittelussa?
- c) Minkälaista yhteistyötä vaatetussuunnittelijat ja tulevaisuudentutkijat voisivat tehdä?

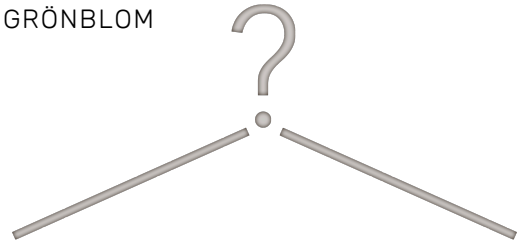
### 3. TULEVAISUUDEN VAATETUS

Arvioi omia mahdollisuuksiasi vaikuttaa tulevaisuuden vaatetukseen vaatetusalan ammattilaisena.

- a) Koetko voivasi vaikuttaa siihen, millaiseksi vaatetus kehittyy tulevaisuudessa?
- b) Kuinka tärkeäksi koet tulevaisuuden vaatetuksen tutkimisen? Miksi se on tärkeää/ei tärkeää?

VAPAA SANA

WED 11/11/2015 | 9AM-6PM | ROOM F3113  
ORGANIZER HELENA GRÖNBLOM



## GENERAL INFORMATION

Major subject

Education

Age

### 1. FUTURE WORKSHOP AS A METHOD

Evaluate Future Wardrobe Workshop as an experience.

- a) What kind of use or fun the workshop was for you?
- b) Which was the best/most pleasant part of the workshop, and why?
- c) Which was the least inspiring/most useless part of the workshop, and why?
- d) Would you like to participate a future workshop again some time?
- e) What would the future workshop of your dreams be like?

### 2. FUTURES STUDIES IN CLOTHING DESIGN

Evaluate futures studies methods as part of the clothing design process.

- a) Would you like to use futures studies methods, like future workshop, in your future job? State your answer.
- b) How could futures studies benefit clothing design?
- c) What kind of collaboration could clothing designers and futures researchers do?

### 3. CLOTHING OF THE FUTURE.

Evaluate your own chances to influence the clothing of the future as a professional in clothing field.

- a) Do you think you can affect to how clothing will develop in the future?
- b) In your mind, how important is it to search the clothing of the future? Why is it important/not important?

## FREE WORD

